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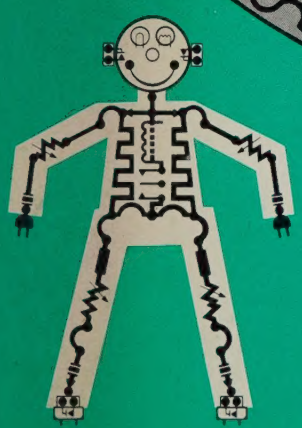
ALLIED ELECTRONICS

A DIVISION OF TANDY CORPORATION

1976 ENGINEERING MANUAL & PURCHASING GUIDE No. 760



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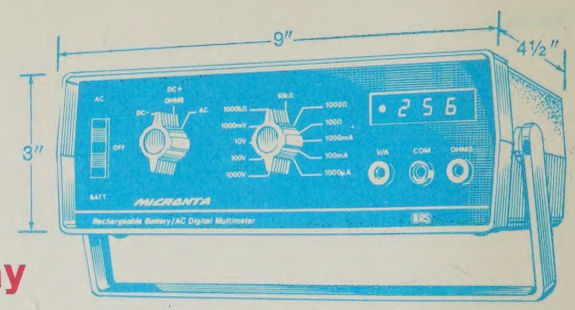
ALLIED DELIVERS EVERYTHING IN THIS GUIDE.

ALLIED® Exclusive! Digital VOM for 99.95 in lots of 4

Micronta® Rechargeable Battery/AC Multimeter with Big 3½-Digit LED Display



MODEL 22-200

- *Dual Slope Analog-to-Digital Converter!*
- *Automatic Blanking! • Overrange Protected!*
- *Overrange Indicator! • Mercury Reference Cell!*

Look what you get for Allied's low prices! A versatile solid-state VOM with the latest MOS/LSI integrated circuitry and newest features. Measures four ranges of AC and DC voltage, three ranges of AC and DC current and four ranges of resistance. Features a dual-slope, analog-to-digital converter plus an internal voltage reference cell for the best in accuracy and reliability. The shockproof 3½-digit readout includes a separate overrange indicator for precise readings and totally eliminates parallax errors. Big 0.3" numerals make it easy to read measurements—even at a distance. Overrange allows readings up to 75% beyond the indicated scales,except for highest voltage and current ranges, with full overrange protection. Polarity switch eliminates the need to reverse leads. Our low price includes a tilt/stand carrying handle for bench or portable use, test leads, and a complete owner's manual.

910-4671. 1-3.....**Each 119.95** **4-Up**.....**99.95**

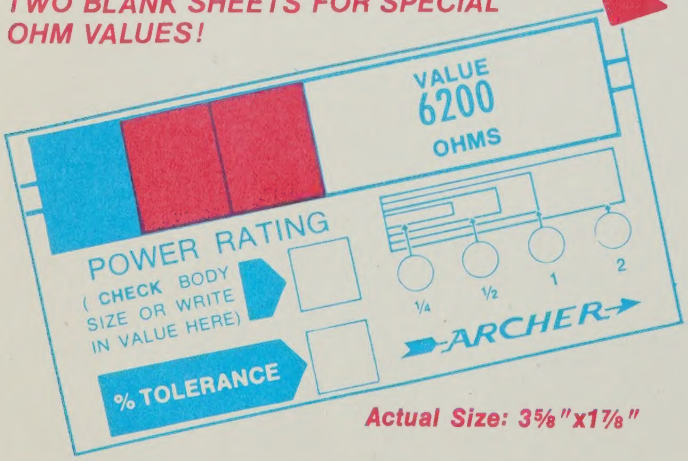
We Can Private Label This DVM With Your Company Logo (1000 Piece Minimum).

MODEL 22-200 SPECIFICATIONS

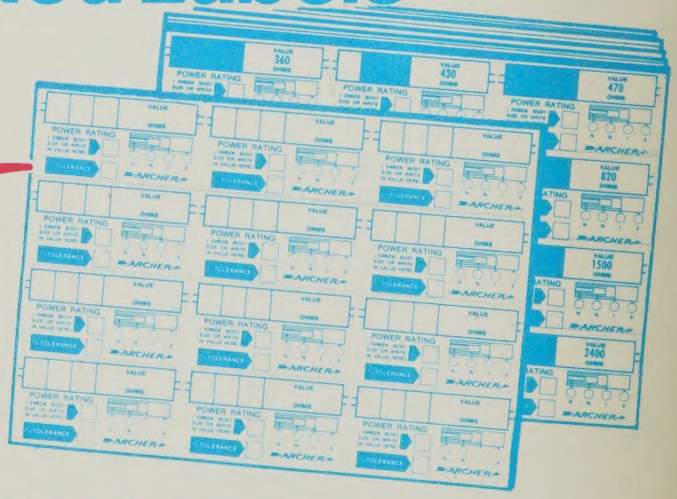
Ranges. DC Volts: 0-1, 0-10, 0-100, 0-1000, with 1% accuracy ±1 digit. **AC Volts:** 0-1, 0-10, 0-100, 0-1000, with 1½% accuracy ±1 digit. **DC Current:** 0-1 and 0-100 mA, 0-1 amp, with 1½% accuracy ±1 digit. **AC Current:** 0-1 and 0-100 mA, 0-1 amp, with 2% accuracy ±1 digit. **Resistance:** 0-100 ohms, 1K, 10K, 1 megohm, with 2% accuracy ±1 digit. **Readout Size:** 0.3" high. **Power Requirements:** Nine "AA" rechargeable or standard batteries (optional at extra cost) or 120 VAC, 60 Hz. **Size:** 3" high x 9" wide x 4½" deep. **Accessories Included:** Tilt/stand carrying handle, built-in AC adapter, test leads, comprehensive owner's manual.

ALLIED® Pre-printed Labels for Resistor Bins

Ideal Where Resistors Are Stored or Used—Package Contains 167 Values from 2.7 Ohms to 22 Megs!
16 Sheets/Package—Each Sheet Has 16 Tags!
Each Tag Color-Coded and Shows Ohm Value!
TWO BLANK SHEETS FOR SPECIAL OHM VALUES!



Actual Size: 3⅝"x1⅞"



Bin labels give you "fool-proof" labeling! Each tag has the correct resistor color codes and the values in ohms shown in numerical figures. Each package contains 167 ohm values. Locate any resistor at a glance with separate color-coding and ohm value printed out for quick identification. 16 sheets per set—each with 16 tags, perforated and with gummed back. Tags may be taped or stapled to compartments or bins to meet individual requirements.

707-9999 Shpg. wt. 10 oz....**Per Set 12.88** **4-Up...Per Set 9.95**

Each Tag Color-Coded in Full Color for Ohm Value!

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ALLIED ELECTRONICS
A DIVISION OF TANDY CORPORATION

P.O. BOX 1544 • FORT WORTH, TEXAS 76101 • PHONE: 817-336-5401

OFFICE OF THE PRESIDENT
NEW ALLIED POLICY

Dear Customer:

Our 1976 Engineering Manual and Purchasing Guide reflects a very careful study by Allied and its suppliers to assure that most every standard product is available, even though overlapping product lines have been eliminated. The total number of products offered are those which we and our suppliers have determined are 85% of the industry's past and present needs. These products are also what we are confident can be delivered on time, both by Allied and our suppliers.

YOUR REQUIREMENTS – Careful review of your needs and requirements have dictated to Allied the following:

1. Broad base of product lines allow you to place more items per purchase order.
2. Delivery from stock of at least 90% minimum of the products you require.
3. Correct shipping and billing of your purchase orders.
4. Where an out-of-stock condition occurs, a follow-up system to assure realistic delivery schedules that will meet your requirements.

ALLIED'S NEW POLICY – With these requirements in mind, we have established the following policy:

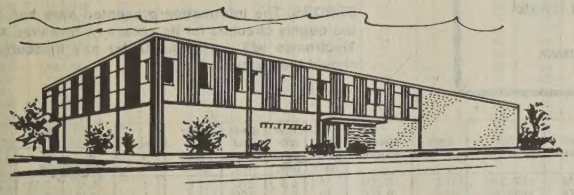
1. Allied will handle orders only for items that are listed in this catalog.
2. More in-depth inventory of standard products, (this insures a 90% fill from stock on the majority of your needs).
3. Follow-up system of all open items so that the status is readily available, (this gives you an accurate follow-up with realistic delivery dates).
4. Increased training of our warehouse staff to insure fast, accurate filling and shipping of your orders.
5. Cross-reference information in the catalog and at our sales desks to make Allied more responsive to your needs.
6. "Pack and Hold" will guarantee delivery of production orders. (A minimum of 90 days worth of merchandise will be set aside to meet your monthly delivery schedules.)

The above policy will permit Allied to meet your requirements and it is our pledge to make timely delivery on all items in this catalog. ALLIED'S TOTAL SERVICE CONCEPT

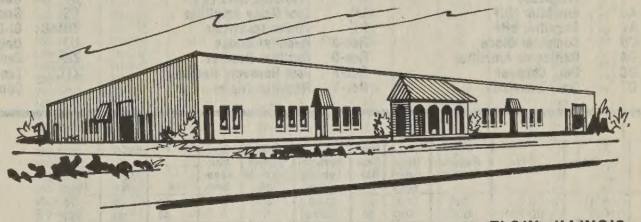
Sincerely yours,
ALLIED ELECTRONICS

George W. Steeves
George W. Steeves
President

ALLIED'S NATIONWIDE SERVICE ASSURES YOU PROMPT SHIPMENT OF ALL YOUR ELECTRONIC NEEDS



BOSTON, MASSACHUSETTS



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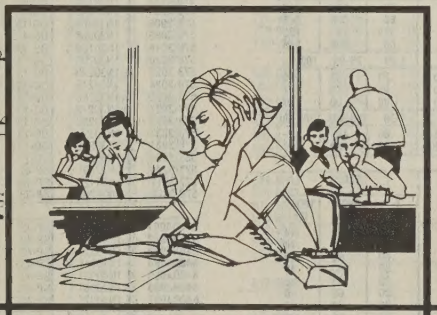

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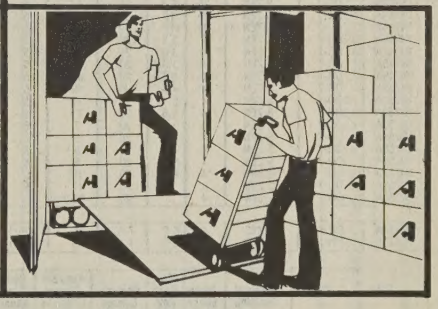

COAST-TO-COAST FACILITIES READY TO SERVE YOU

All Allied Electronics Facilities Have Phone and Will-Call Departments Open Monday thru Friday, 8:00 AM to 5:00 PM. Saturday Hours are 8:00 AM to 12:00 Noon. No Saturday Hours During July and August.

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Alec Electron

ALLIED ELECTRONICS
TC A DIVISION OF TANDY CORPORATION

DISCRETE DEVICES DIRECTORY

SEE PAGE 6 FOR INTEGRATED CIRCUITS

TRANSISTORS, DIODES, RECTIFIERS AND ASSOCIATED DEVICES

Dissipation is listed at 25°C ambient; on high power devices designated by "C" the rating is listed for case temperature of 25°C. Temperature-compensated zeners list two sets of figures in the tolerance column. The first gives the % of voltage change for each °C of temperature change; the second, zener voltage tolerance. In the transistor section under HFE † indicates an Alpha value. Under the fT column, the matching tolerance for the differential amplifier pair is given at % † at the current under the HFE mA column. No listing under collector current is limited by dissipation of the device. No listing under fT usually fT below 50 KHz. In material and function column, the first letter indicates type of material (S=Silicon; G=Germanium; SL=Selenium); second letter indicates polarity, if any. (N=NPN, P=PNP); succeeding letters indicate function (see table).

FUNCTION ABBREVIATIONS

AA	Amplifier Audio	FE	Field Effect	Rect	Rectifier
AD	Amplifier Differential	FRR	Fast Recovery Rectifier	SCR	Silicon Controlled Rectifier
AH	Amplifier High Frequency	FS	Fast Switch		
AP	Amplifier Power	GP	General Purpose	SG	Sensitive Gate
AR	Amplifier Radio Low Frequency	HCD	High Speed Computer Diode	SH	Switch High Speed
AU	Amplifier UHF	IF	Insulated Gate FET	SM	Switch Medium Speed
AV	Amplifier VHF	LN	Low Noise Amplifier	SS	Switch Power
CD	Computer Diode	PT	Power Transistor	TRIAC	Small Signal
DA	Darlington Amplifier	Rec-B	Rectifier Bridge	UJ	Bi-Directional Thyristor
DC	Dual Chopper	Rec-D	Rectifier Doubler	Zen	Unijunction
DT	Dual Transistor	Rec-F	Fast Recovery Rectifier	ZTC	Zener
		Rec-T	Rectifier Tripler		Zener Temperature Compensated

SUBSTITUTIONS. Allied Electronics reserves the right to substitute, if necessary, an identical device of another manufacturer for the brand requested.

ERRORS. The information presented here has been thoroughly checked for its accuracy. However, Allied Electronics will not be liable for any inaccuracies, should they occur.

Stock Number	Type	Case	Material Function	Dissipation Watts	Max. Peak Rev. Volt	Reverse Current uA@V	Forward Current @VF = IV mA	Rec. Time Nano-Sec.	EACH 1-24	25-99	100-Up
578-0034	1N34A	DO-7	GSS	.130	75	30-10	5		.40	.32	.20
577-0060	1N60	DO-7	GSS	.080	40	200-10	5		.40	.32	.20
									1-99	100-999	1000-Up
552-0456	1N456A	DO-7	SGP	.2	30	.025-25	100		.69	.506	.345
552-0457	1N457A	DO-7	SGP	.2	70	.025-60	100		.69	.506	.345
552-0458	1N458A	DO-7	SGP	.2	125	.025-125	100		.375	.28	.195
552-0459	1N459A	DO-7	SGP	.2	175	.025-175	200		.69	.506	.345
									1-24	25-99	100-Up
577-0538	1N538	DO-1	S Rect		200	300-200	750mA	Io	.73	.55	.38
577-0540	1N540	DO-1	S Rect		400	300-400	250mA	Io	.98	.70	.47
577-0547	1N547	DO-1	S Rect		600	350-600	250mA	Io	1.40	1.00	.66
									1-99	100-999	1000-Up
551-0659	1N659	DO-7	SCD		60	1-100	400	6	.66	.48	.33
551-0661	1N661	DO-7	SCD		200	10-200	6	300	.90	.672	.468

Stock Number	Type	Case	Material Function	Dissipation Watts	Zener Voltage Volts	Zener Test Current mA	Zener Test Imped. Ohms	Tol. %	EACH 1-99	100-999	1000-Up
578-0702	1N702A	DO-7	S ZEN	.25	2.6	5	45	5	.80	.60	.40
578-0704	1N704A	DO-7	S ZEN	.25	4.1	5	55	5	.80	.60	.40
578-0705	1N705A	DO-7	S ZEN	.25	4.8	5	35	5	.80	.60	.40
578-0706	1N706A	DO-7	S ZEN	.25	5.8	5	20	5	.80	.60	.40
578-0707	1N707A	DO-7	S ZEN	.25	8.0	5	10	5	.80	.60	.40
578-0708	1N708A	DO-7	S ZEN	.25	5.6	25	3.6	5	.80	.60	.40
578-0709	1N709A	DO-7	S ZEN	.25	6.2	25	4.1	5	.80	.60	.40
578-0714	1N714A	DO-7	S ZEN	.25	10	12	8	5	.80	.60	.40
578-0716	1N716A	DO-7	S ZEN	.25	12	12	10	5	.80	.60	.40
640-0746	1N746A	DO-7	S ZEN	.4	3.3	20	28	5	.80	.60	.40
640-0747	1N747A	DO-7	S ZEN	.4	3.6	20	24	5	.80	.60	.40
640-0748	1N748A	DO-7	S ZEN	.4	3.9	20	23	5	.80	.60	.40
640-0749	1N749A	DO-7	S ZEN	.4	4.3	20	22	5	.80	.60	.40
640-0750	1N750A	DO-7	S ZEN	.4	4.7	20	19	5	.80	.60	.40
640R0751	1N751A	DO-7	S ZEN	.4	5.1	20	17	5	.80	.60	.40
640R0752	1N752A	DO-7	S ZEN	.4	5.6	20	11	5	.80	.60	.40
640R0753	1N753A	DO-7	S ZEN	.4	6.2	20	7	5	.80	.60	.40
640-0754	1N754A	DO-7	S ZEN	.4	6.8	20	5	5	.80	.60	.40
640-0755	1N755A	DO-7	S ZEN	.4	7.5	20	6	5	.80	.60	.40
640-0756	1N756A	DO-7	S ZEN	.4	8.2	20	8	5	.80	.60	.40
640-0757	1N757A	DO-7	S ZEN	.4	9.1	20	10	5	.80	.60	.40
640-0758	1N758A	DO-7	S ZEN	.4	10	20	17	5	.80	.60	.40
640-0759	1N759A	DO-7	S ZEN	.4	12	20	30	5	.80	.60	.40
									1-24	25-99	100-Up
578-0823	1N823A	DO-7	S ZTC	.4	6.2	7.5	15	*.005-1	3.47	3.20	2.70
578-0825	1N825A	DO-7	S ZTC	.4	6.2	7.5	15	*.002-1	5.46	4.83	4.08

Stock Number	Type	Case	Material Function	Dissipation Watts	Max. Peak Rev. Volt	Reverse Current mA@V	Forward Current @VF = IV mA.	Rec. Time Nano-Sec.	EACH 1-99	100-999	1000-Up
551R0914	1N914	DO-35	SCD		100	25-20	100	4	.255	.187	.127
553R0914	1N914B	DO-7	SCD		100	25-20	100	4	.255	.187	.127

Stock Number	Type	Case	Material Function	Dissipation Watts	Zener Voltage Volts	Zener Test Current mA	Zener Test Imped. Ohms	Tol. %	EACH 1-24	25-99	100-Up
578-0935	1N935B	DO-7	S ZTC	.5	9.0	7.5	20	*.01-10	2.57	1.68	1.60
578-0936	1N936B	DO-7	S ZTC	.5	9.0	7.5	20	*.005-5	3.05	2.00	1.88
577-0938	1N938D	DO-7	S ZTC	.5	9.0	7.5	20	*.001-10	7.25	5.04	4.75
									1-99	100-999	1000-Up
640-0957	1N957B	DO-7	S ZEN	.4	6.8	18.5	4.5	5	.80	.60	.40
640-0958	1N958B	DO-7	S ZEN	.4	7.5	16.5	5.5	5	.80	.60	.40
640-0959	1N959B	DO-7	S ZEN	.4	8.2	15	6.5	5	.80	.60	.40
640-0960	1N960B	DO-7	S ZEN	.4	9.1	14	7.5	5	.80	.60	.40
640-0961	1N961B	DO-7	S ZEN	.4	10	12.5	8.5	5	.80	.60	.40
640-0962	1N962B	DO-7	S ZEN	.4	11	11.5	9.5	5	.80	.60	.40
640-0963	1N963B	DO-7	S ZEN	.4	12	10.5	11.5	5	.80	.60	.40
640-0964	1N964B	DO-7	S ZEN	.4	13	9.5	13	5	.80	.60	.40
640-0965	1N965B	DO-7	S ZEN	.4	15	9.5	16	5	.80	.60	.40
640-0966	1N966B	DO-7	S ZEN	.4	16	7.8	17	5	.80	.60	.40
640-0967	1N967B	DO-7	S ZEN	.4	18	7.0	21	5	.80	.60	.40
640-0968	1N968B	DO-7	S ZEN	.4	20	6.2	25	5	.80	.60	.40
640-0969	1N969B	DO-7	S ZEN	.4	22	5.6	29	5	.80	.60	.40
640-0970	1N970B	DO-7	S ZEN	.4	24	5.2	33	5	.80	.60	.40
640-0971	1N971B	DO-7	S ZEN	.4	27	4.6	41	5	.80	.60	.40
640-0972	1N972B	DO-7	S ZEN	.4	30	4.2	49	5	.80	.60	.40
640-0973	1N973B	DO-7	S ZEN	.4	33	3.8	58	5	.80	.60	.40

Stock Number	Type	Case	Material Function	Max. Peak Reverse Voltage	Reverse Current mA	Operating Current Io Amps	EACH 1-24	25-99	100-Up
577-1084	1N1084B	SP-1	S Rect	400	200	1	1.42	.79	.66
577-1183	1N1183	DO-5	S Rect	50	2.5	40	3.05	2.05	1.44
577-1184	1N1184	DO-5	S Rect	100	2.5	35	3.73	2.52	1.76
577-1186	1N1186	DO-5	S Rect	200	2.5	35	5.25	3.57	2.48
578-1186	1N1186A	DO-5	S Rect	200	2.5	40	5.80	3.87	2.73
577-1190	1N1190	DO-5	S Rect	600	1.8	35	10.48	7.14	4.97
578-1190	1N1190A	DO-5	S Rect	800	1.8	40	13.78	9.18	6.50
578-1201	1N1201A	DO-4	S Rect	150	2.5	12	2.75	1.84	1.32
578-2069	1N2069A	C-11	S Rect	200	50	.750	.68	.45	.32
578-2070	1N2070A	C-11	S Rect	400	50	.750	.88	.59	.42
578-2071	1N2071A	C-11	S Rect	600	50	.750	1.10	.73	.52

Stock Number	Type	Case	Material Function	Dissipation Watts	Zener Voltage Volts	Zener Test Current mA	Zener Test Imped. Ohms	Tol. %	EACH 1-99	100-999	1000-Up
578-2970	1N2970B	DO-4	S ZEN	10	6.8	370	1.2	5	4.46	3.15	2.65
578-2974	1N2974B	DO-4	S ZEN	10	8.2	305	1.5	5	4.46	3.15	2.65
578-2976	1N2976B	DO-4	S ZEN	10	12	210	3	5	4.46	3.15	2.65
578-2979	1N2979B	DO-4	S ZEN	10	15	170	3	5	4.46	3.15	2.65
578-2984	1N2984B	DO-4	S ZEN	10	20	125	4	5	4.46	3.15	2.65
578-2986	1N2986B	DO-13	S ZEN	1	6.8	37	3.5	5	4.46	3.15	2.65
578-3006	1N3006B	DO-4	S ZEN	10	105	25	45	5	4.46	3.15	2.65
578-3016	1N3016B	DO-13	S ZEN	1	6.8	37	3.5	5	3.47	2.68	2.26
578-3020	1N3020B	DO-13	S zen	1	10.0	25	7.0	5	3.47	2.68	2.26
578-3022	1N3022B	DO-13	S ZEN	1	12.0	21	9.0	5	3.47	2.68	2.26
578-3024	1N3024B	DO-13	S ZEN	1	82	3.0	200	5	3.47	2.68	2.26
578-3026	1N3026B	DO-13	S ZEN	1	18	14	20	5	3.47	2.68	2.26
578-3027	1N3027B	DO-13	S ZEN	1	18	14	20	5	3.47	2.68	2.26
578-3029	1N3029B	DO-13	S ZEN	1	24	10.5	25	5	3.47	2.68	2.26
578-3033	1N3033B	DO-13	S ZEN	1	36	7.0	50	5	3.47	2.68	2.26
578-3051	1N3051B	DO-13	S ZEN	1	200	1.2	1500	5	3.47	2.68	2.26
551-3064	1N3064	DO-7	SCD		75	100-50	10	4	.66	.66	.48
577-3209	1N3209	SP-41	S Rect		100	PRV - .15 Amp Io			2.25	1.42	1.05
577-3212	1N3212	SP-14	S Rect		400	PRV - .15 Amp Io			4.15	2.68	1.95
578-3826	1N3826A	SP-33	S ZEN	1.0	5.1	49.0	7	5	4.70	3.13	2.21
									1-99	100-999	1000-Up
640R4001	1N4001	SP-43	S Rect		50	PRV - 1 Amp Io			.32	.20	.11
640R4002	1N4002	SP-43	S Rect		100	PRV - 1 Amp Io			.33	.21	.12
640R4003	1N4003	SP-43	S Rect		200	PRV - 1 Amp Io			.35	.22	.13
640R4004	1N4004	SP-43	S Rect		400	PRV - 1 Amp Io			.45	.27	.16
640R4005	1N4005	SP-43	S Rect		600	PRV - 1 Amp Io			.45	.27	.16
640R4006	1N4006	SP-43	S Rect		800	PRV - 1 Amp Io			.45	.27	.16
640R4007	1N4007	SP-43	S Rect		1000	PRV - 1 Amp Io			.48	.29	.17

Stock Number	Type	Case	Material Function	Dissipation Watts	Max. Peak Rev. Volt	Reverse Current uA@V	Forward Current @VF = IV mA	Rec. Time Nano-Sec.	EACH 1-99	100-999	1000-Up
551R4148	1N4148	DO-35	S HCD	PIV 75V - IF 10mA - 1V VP/1RR 4 N Sec.					.255	.187	.127
554-4148	1N4148JAN	DO-35	S HCD	PIV 75V - IF 10mA - 1V VP@IRR 4 N Sec.					.33	.24	.165
551-4149	1N4149	DO-35	S HCD	PIV 75V - IF 10mA - 1V VP@RR 4 N Sec.					.27	.202	.14
551-4152	1N4152	DO-35	S HCD	PIV 30V - IF 1-.55 VP - 1R1RRR 2 N Sec.					.578	.431	.30
551-4154	1N4154	DO-35	S HCD	PIV 25V - IF@VP - IRR 2 N Sec.					.263	.193	.131
									1-24	25-99	100-Up
817-4370	1N4370	DO-7	S ZEN	.4	2.4	20	30	10	1.88	1.25	.88
976R0210	1N4436			10 Amp Bridge Rect					5.88	4.70	3.05
976R0210	1N4436/F/S			10 Amp Bridge Rect					6.50	5.20	3.35
976R0220	1N4436/F/T			10 Amp Bridge Rect					6.25	5.00	3.25
976-0230	1N4437			10 Amp Bridge Rect					7.75	6.20	4.00
976R0240	1N4437/F/S			10 Amp Bridge Rect					8.38	6.70	4.30
976-0250	1N4437/F/T			10 Amp Bridge Rect					8.13	6.50	4.20
976-0270	1N4438/F/S			10 Amp Bridge Rect					11.25	9.00	5.75
976-0280	1N4438/F/T			10 Amp Bridge Rect					11.00	8.80	5.65
									1-99	100-999	1000-Up
551-4448	1N4448	DO-35	S HCD	75 PIV - IF 100mA - VF 1 - IRR 4 NS					.27	.201	.14
551-4454	1N4454	DO-35	S HCD	75 PIV - IF 10mA - VF 1 - IRR 2 NS					.255	.187	.127
640-4728	1N4728A	DO-41	S ZEN	1	3.3	76	10	5	.90	.75	.60
640-4729	1N4729A	DO-41	S ZEN	1	3.6	69	10	5	.90	.75	.60
640-4730	1N4730A	DO-41	S ZEN	1	3.9	64	9	5	.90	.75	.60
640-4731	1N4731A	DO-41	S ZEN	1	4.3	58	9	5	.90	.75	.60
640-4732	1N4732A	DO-41	S ZEN	1	4.7	53	8	5	.90	.75	.60
640R4733	1N4733A	DO-41	S ZEN	1	5.1	49	7	5	.90	.75	.60
640-4734	1N4734A	DO-41	S ZEN	1	5.6	45	5	5	.90	.75	.60
640-4735	1N4735A	DO-41	S ZEN	1	6.2	41	2	5	.90	.75	.60
640-4736	1N4736A	DO-41	S ZEN	1	6.8	37	3.5	5	.90	.75	.60
640-4737	1N4737A	DO-41	S ZEN	1	7.5	34	4	5	.90	.75	.60
640-4738	1N4738A	DO-41	S ZEN	1	8.2	31	4.5	5	.90	.75	.60
640-4739	1N4739A	DO-41	S ZEN	1	9.1	28	5	5	.90	.75	.60
640-4740	1N4740A	DO-41	S ZEN	1	10	25	7	5	.90	.75	.60
640-4741	1N4741A	DO-41	S ZEN	1	11	23	8	5	.90	.75	.60
640-4742	1N4742A	DO-41	S ZEN	1	12	21	9	5	.90	.75	.60
640-4743	1N4743A	DO-41	S ZEN	1	13	19	10	5	.90	.75	.60
640R4744	1N4744A	DO-41	S ZEN	1	15	17	14	5	.90	.75	.60
640-4745	1N4745A	DO-41	S ZEN	1	16	15.5	16	5	.90	.75	.60
640-4746	1N4746A	DO-41	S ZEN	1	18	14	20	5	.90	.75	.60
640-4747	1N4747A	DO-41	S ZEN	1	20	12.5	22	5	.90	.75	.60
640-4748	1N4748A	DO-41	S ZEN	1	22	11.5	23	5	.90	.75	.60
640-4749	1N4749A	DO-41	S ZEN	1	24	10.5	25	5	.90	.75	.60
640-4750	1N4750A	DO-41	S ZEN	1	27	9.5	35	5	.90	.75	.60
640-4751	1N4751A	DO-41	S ZEN	1	30	8.5	40	5	.90	.75	.60
640-4752	1N4752A	DO-41	S ZEN	1	33	7.5	45	5	.90	.75	.60
578-4753	1N4753A	DO-41	S ZEN	1	36	7.0	50	5	.90	.75	.60
578-4754	1N4754A	DO-41	S ZEN	1	39	6.5	60	5	.90	.75	.60
578-4755	1N4755A	DO-41	S ZEN	1	43	6.0	70	5	.90	.75	.60
578-4756	1N4756A	DO-41	S ZEN	1	47	5.5	80	5	.90	.75	.60
578-4757	1N4757A	DO-41	S ZEN	1	51	5.0	95	5	.90	.75	.60
578-4758	1N4758A	DO-41	S ZEN	1	56	4.5	110	5	.90	.75	.60
578-4759	1N4759A	DO-41	S ZEN	1	62	4.0	125	5	.90	.75	.60
578-4760	1N4760A	DO-41	S ZEN	1	68	3.7	150	5	.90	.75	.60
578-4761	1N4761A	DO-41	S ZEN	1	75	3.3	175	5	.90	.75	.60
578-4762	1N4762A	DO-41	S ZEN	1	82	3.0	200	5	.90	.75	.60
578-4763	1N4763A	DO-41	S ZEN	1	91	2.8	250	5	.90	.75	.60
577-4764	1N4764A	DO-41	S ZEN	1	100	2.5	350	5	.90	.75	.60
									1-24	25-99	100-Up
577-4816	1N4816	C-11	S Rect		50 Volts VRM		1.5 Amps Io		.50	.40	.23
577-4818	1N4818	C-11	S Rect		200 Volts VRM		1.5 Amps Io		.67	.45	.32
817-4820	1N4820	C-11	S Rect		400 Volts VRM		1.5 Amps Io		.88	.58	.41
577-4822	1N4822	C-11	S Rect		600 Volts VRM		1.5 Amps Io		1.20	.80	.57

Stock Number	Type	Case	Material Function	Dissipation Watts	Zener Voltage Volts	Zener Test Current mA	Zener Test Imped. Ohms	Tol. %	EACH 1-99	100-999	1000-Up
640-5221	1N5221B	DO-7	S ZEN	.5	2.4	20	30	5	.80	.60	.40
640-5222	1N5222B	DO-7	S ZEN	.5	2.5	20	30	5	.80	.60	.40

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Stock Number	Type	Case	Material Function	Dissipation Watts	Zener Voltage Volts	Zener Test Current mA	Zener Test Imped. Ohms	Tol. %	EACH 1-99	100-999	1000-Up
640-5223	1N5223B	DO-7	S ZEN	.5	2.7	20	30	5	.80	.60	.40
640-5224	1N5224B	DO-7	S ZEN	.5	2.8	20	30	5	.80	.60	.40
640-5225	1N5225B	DO-7	S ZEN	.5	3.0	20	29	5	.80	.60	.40
640-5226	1N5226B	DO-7	S ZEN	.5	3.3	20	28	5	.80	.60	.40
640-5227	1N5227B	DO-7	S ZEN	.5	3.6	20	24	5	.80	.60	.40
640-5228	1N5228B	DO-7	S ZEN	.5	3.9	20	23	5	.80	.60	.40
640-5229	1N5229B	DO-7	S ZEN	.5	4.3	20	22	5	.80	.60	.40
640-5230	1N5230B	DO-7	S ZEN	.5	4.7	20	19	5	.80	.60	.40
640-5231	1N5231B	DO-7	S ZEN	.5	5.1	20	7	5	.80	.60	.40
640-5232	1N5232B	DO-7	S ZEN	.5	5.6	20	11	5	.80	.60	.40
640-5233	1N5233B	DO-7	S ZEN	.5	6.0	20	9	5	.80	.60	.40
640-5234	1N5234B	DO-7	S ZEN	.5	6.2	20	7	5	.80	.60	.40
640-5235	1N5235B	DO-7	S ZEN	.5	6.8	20	5	5	.80	.60	.40
640-5236	1N5236B	DO-7	S ZEN	.5	7.5	20	6	5	.80	.60	.40
640-5237	1N5237B	DO-7	S ZEN	.5	8.2	20	8	5	.80	.60	.40
640-5238	1N5238B	DO-7	S ZEN	.5	8.7	20	8	5	.80	.60	.40
640-5239	1N5239B	DO-7	S ZEN	.5	9.1	20	10	5	.80	.60	.40
640-5240	1N5240B	DO-7	S ZEN	.5	10	20	17	5	.80	.60	.40
640-5241	1N5241B	DO-7	S ZEN	.5	11	20	22	5	.80	.60	.40
640-5242	1N5242B	DO-7	S ZEN	.5	12	20	30	5	.80	.60	.40
640-5243	1N5243B	DO-7	S ZEN	.5	13	9.5	13	5	.80	.60	.40
640-5244	1N5244B	DO-7	S ZEN	.5	14	9	15	5	.80	.60	.40
640-5245	1N5245B	DO-7	S ZEN	.5	15	8.5	16	5	.80	.60	.40
640-5246	1N5246B	DO-7	S ZEN	.5	16	7.8	17	5	.80	.60	.40
640-5247	1N5247B	DO-7	S ZEN	.5	17	7.4	19	5	.80	.60	.40
640-5248	1N5248B	DO-7	S ZEN	.5	18	7.0	21	5	.80	.60	.40
640-5249	1N5249B	DO-7	S ZEN	.5	19	6.6	23	5	.80	.60	.40
640-5250	1N5250B	DO-7	S ZEN	.5	20	6.2	25	5	.80	.60	.40
640-5251	1N5251B	DO-7	S ZEN	.5	22	5.6	29	5	.80	.60	.40
640-5252	1N5252B	DO-7	S ZEN	.5	24	5.2	33	5	.80	.60	.40
640-5253	1N5253B	DO-7	S ZEN	.5	25	5.0	35	5	.80	.60	.40
640-5254	1N5254B	DO-7	S ZEN	.5	27	4.6	41	5	.80	.60	.40
640-5255	1N5255B	DO-7	S ZEN	.5	28	4.5	44	5	.80	.60	.40
640-5256	1N5256B	DO-7	S ZEN	.5	30	4.2	49	5	.80	.60	.40
640-5257	1N5257B	DO-7	S ZEN	.5	33	3.8	58	5	.80	.60	.40
578-5335	1N5335B	C-12	S ZEN	5	3.9	320	2	5	2.21	1.66	.88
578-5337	1N5337B	C-12	S ZEN	5	4.7	260	2	5	2.21	1.66	.88
578-5338	1N5338B	C-12	S ZEN	5	5.1	240	1.5	5	2.21	1.66	.88
578-5340	1N5340B	C-12	S ZEN	5	6	200	1	5	2.21	1.66	.88
578-5342	1N5342B	C-12	S ZEN	5	6.8	175	1	5	2.21	1.66	.88
578-5343	1N5343B	C-12	S ZEN	5	7.5	175	1.5	5	2.21	1.66	.88
578-5344	1N5344B	C-12	S ZEN	5	8.2	150	1.5	5	2.21	1.66	.88
578-5346	1N5346B	C-12	S ZEN	5	9.1	150	2	5	2.21	1.66	.88
578-5347	1N5347B	C-12	S ZEN	5	10	125	2	5	2.21	1.66	.88
578-5349	1N5349B	C-12	S ZEN	5	12	100	2.5	5	2.21	1.66	.88

Stock Number	Type	Case	Material Function	Dissipation Watts	Zener Voltage Volts	Zener Test Current mA	Zener Test Imped. Ohms	Tol. %	EACH 1-99	100-999	1000-Up
578-5350	1N5350B	C-12	S ZEN	5	13	100	2.5	5	2.21	1.66	.88
578-5351	1N5351B	C-12	S ZEN	5	14	100	2.5	5	2.21	1.66	.88
578-5352	1N5352B	C-12	S ZEN	5	15	75	2.5	5	2.21	1.66	.88
578-5353	1N5353B	C-12	S ZEN	5	16	75	2.5	5	2.21	1.66	.88
578-5354	1N5354B	C-12	S ZEN	5	17	70	2.5	5	2.21	1.66	.88
578-5355	1N5355B	C-12	S ZEN	5	18	65	2.5	5	2.21	1.66	.88
578-5357	1N5357B	C-12	S ZEN	5	20	65	3.0	5	2.21	1.66	.88
578-5358	1N5358B	C-12	S ZEN	5	22	50	3.5	5	2.21	1.66	.88
578-5359	1N5359B	C-12	S ZEN	5	24	50	3.5	5	2.21	1.66	.88
570-5360	1N5360B	C-12	S ZEN	5	25	50	4.0	5	2.21	1.66	.88
578-5361	1N5361B	C-12	S ZEN	5	27	50	5.0	5	2.21	1.66	.88
578-5363	1N5363B	C-12	S ZEN	5	30	40	8	5	2.21	1.66	.88
578-5364	1N5364B	C-12	S ZEN	5	33	40	10	5	2.21	1.66	.88
578-5365	1N5365B	C-12	S ZEN	5	36	30	11	5	2.21	1.66	.88
578-5366	1N5366B	C-12	S ZEN	5	39	30	14	5	2.21	1.66	.88
578-5369	1N5369B	C-12	S ZEN	5	51	25	27	5	2.21	1.66	.88
578-5373	1N5373B	C-12	S ZEN	5	68	20	44	5	2.21	1.66	.88
578-5374	1N5374B	C-12	S ZEN	5	75	20	45	5	2.21	1.66	.88
578-5378	1N5378B	C-12	S ZEN	5	100	12	90	5	2.21	1.66	.88

Stock Number	Type	Case	Material Function	Dissipation Watts	Col'l'r to Base Volts	Col'l'r Curr. mA	Beta HFE@Ic Min/ Max.	mA	EACH 1-24	25-99	100-Up
579-0688	2N688	TO-48	SCR		400V VRRM 25A IT (RMS)				13.53	9.02	6.36
579-0690	2N690	TO-48	SCR		600V VRRM 25A IT (RMS)				12.71	10.87	8.95
									1-99	100-999	1000-Up
555R0697	2N697	TO-5	SN GP	.600	60	150	40-120	150	.87	.57	.46
555-0914	2N914	TO-18	SN SH	.500	40	500	30-120	10	.485	.30	.26
555-0918	2N918	TO-72	SN AU	.200	30	50	-		.74	.46	.40
555-0930	2N930	TO-8	SN LN	.600	45		100-300		.62	.41	.33
555-1132	2N1132	TO-39	SP SH	.600	50	150	30-90	150	.97	.64	.52
									1-24	25-99	100-Up
579-1595	2N1595	TO-5	SCR		50V VRRM 1.6A IT (RMS)				1.65	1.58	1.10
579-1596	2N1596	TO-5	SCR		100V VRRM 1.6A IT (RMS)				2.18	1.97	1.38
									1-99	100-999	1000-Up
555-1613	2N1613	TO-5	SN GP	.800	75	1A	40-120	150	.90	.60	.48
555R1711	2N1711	TO-5	SN GP	SC	75	1A	100-300	150	.93	.61	.50
579-1772	2N1772	TO-64	SCR		100V VRRM 7.4 A IT (RMS)				4.70	3.15	2.21
555-1893	2N1893	TO-5	SN GP	.8	120		40-120	150	.86	.53	.46
555-2218	2N2218	TO-5	SN SH	.800	60	800	25	1	.87	.57	.46

Stock Number	Type	Case	Material Function	Maximum Ratings: Dissipation Watts	Col'l'r to Base Volts	Col'l'r Curr. mA	Beta HFE@Ic: Min/ Max.	mA	EACH 1-99	100-999	1000-Up
555R2219	2N2219	TO-5	SH SH	800	60	800	100-300	150	.90	.60	.48
556-2219	2N2219A	TO-5	SH SH	800	75	800	100-300	150	.93	.61	.50
555R2222	2N2222	TO-18	SH SH	500	60	800	100-300	150	.53	.35	.28
555R2270	2N2270	TO-5	SN AR	1	60	1A	50-200	150	.82	.55	.51
									1-9	10-Up	
579-2322	2N2322	TO-5	SCR		25V VRRM 1.6 Alt (RMS)				1.58	1.10	
579-2323	2N2323	TO-5	SCR		50V VRRM 1.6 Alt (RMS)				1.80	1.22	
									1-99	100-999	1000-Up
555-2369	2N2369A	TO-18	SN AU	360	40	200	40	10	.60	.40	.32
555-2405	2N2405	TO-5	SN AP	1	120	1A	60-200	150	1.40	.87	.75
555-2484	2N2484	TO-18	SN GL	600	60		80	1u	.51	.32	.275
556-2904	2N2904A	TO-5	SP GP	600	60	650	40-120	150	.90	.60	.48
555R2905	2N2905	TO-5	SP GP	600	60	600	100-300	150	.90	.60	.48
556-2905	2N2905A	TO-5	SP GP	600	60	600	100-300	150	.93	.61	.50
556-2906	2N2906A	TO-18	SP GR	400	60	600	40-120		.53	.35	.28
555R2907	2N2907	TO-18	SP GP	400	60	600	40-100	150	.53	.35	.28
556-2907	2N2907A	TO-18	SP GP	400	60	600	40-100	150	.60	.40	.32
555-3009	2N3009	TO-52	SN SH	360	40	200	30-120	30	.91	.57	.495
555R3053	2N3053	TO-5	SN AP	5C	60	700	50-250	150	.87	.57	.46
555R3054	2N3054	TO-60	SN AP	25C	90	4A	25-100	500	1.10	.82	.68
555R3055	2N3055	TO-66	SN AP	117C	100	15A	20-70	4A	1.42	1.05	.92
555-3250	2N3250	TO-18	SP SH	360	50	200	50-150	10	.67	.44	.415
555-3251	2N3251	TO-18	SP SH	360	50	200	100-300	10	.73	.56	.49
555-3439	2N3439	TO-5	SN AP	10C	450	1A	40-60	20	2.00	1.35	1.12
555R3440	2N3440	TO-5	SN AP	10C	300	1A	40-60	20	1.35	.90	.75
555R3563	2N3563	TO-106	SN AU	.200	30	50			.285	.177	.154
555R3565	2N3565	TO-106	SN AL	.200	301	50	150-600		.228	.142	.123
555R3566	2N3566	TO-105	SN GP	.300	40	200	150-600	10	.285	.177	.154
555R3567	2N3567	TO-105	SN GP	.300	80	500	60-120	150	.255	.159	.139
555R3568	2N3568	TO-105	SN GP	.300	80	500	40-120	150	.37	.23	.20
555R3569	2N3569	TO-105	SN GP	.300	80	500	100-300	150	.314	.195	.169
555R3638	2N3638	TO-105	SPSH	.300	25	500	100	50	.255	.159	.139
556R3638	2N3638A	TO-105	SPSH	.300	25	500	100	50	.285	.177	.154
555-3639	2N3639	TO-106	SP SH	.200	6		30-120	10	.355	.221	.193
555-3640	2N3640	TO-106	SP SH	.200	12		30-120	10	.425	.265	.23
555-3641	2N3641	TO-105	SN GP	.350	60	500	40-120	150	.315	.195	.169
555-3642	2N3642	TO-105	SN GP	.350	60	500	40-120	150	.315	.195	.169

Stock Number	Type	Case	Material Function	Maximum Ratings: Dissipation Watts	Col'l'r to Base Volts	Col'l'r Curr. mA	Beta HFE@Ic: Min/ Max.	mA	EACH 1-99	100-999	1000-Up
555R3643	2N3643	TO-105	SN GP	.350	60	500	100-300	150	.315	.195	.169
555R3644	2N3644	TO-105	SP SH	.300	45	500	115-300	50	.34	.212	.185
555R3645	2N3645	TO-145	SP SH	.300	60	500	115-300	50	.34	.212	.185
555R3646	2N3646	TO-106	SN SH	.200	40	200	30-120	30	.285	.177	.154
555-3714	2N3714	TO-3	SN AP	150C	100	10A	25-75	2A	1.64	1.26	1.07
555-3715	2N3715	TO-3	SN AP	150C	80	10A	50-150	2A	2.35	1.55	1.30
555-3716	2N3716	TO-3	SN AP	150C	100	10A	50-150	2A	3.10	2.05	1.71
555-3740	2N3740	TO-66	SN AP	25C	60	1A	30-100	50	1.80	1.20	1.00
555-3741	2N3741	TO-66	SN AP	25C	80	1A	30-100	250	2.10	1.40	1.16
555-3766	2N3766	TO-66	SN AP	20C	80	1A	40-160	500	1.62	1.20	1.04
555-3790	2N3790	TO-3	SP AP	150C	80	10A	25-90	1A	4.25	2.85	2.36
555-3792	2N3792	TO-3	SP AP	150C	80	10A	50-180	1A	4.65	3.10	2.57
555-3903	2N3903	TO-92	SN SH	.310	60	200	50		.51	.32	.275
555R3904	2N3904	TO-92	SN SH	.310	60	200	100	1	.51	.32	.275
555-3905	2N3905	TO-92	SP SH	.310	40	200	50	1	.53	.33	.285
555R3906	2N3906	TO-92	SP SH	.310	40	200	100	1	.53	.33	.285
555-4123	2N4123	TO-92	SN GP	.310	40	200	50	2	.34	.212	.185
555R4124	2N4124	TO-92	SN GP	.310	30	200	120	2	.34	.212	.185
555-4125	2N4125	TO-92	SP GP	.310	30	200	50	2	.34	.212	.185
555-4126	2N4126	TO-90	SP GP	.310	25	200	120	2	.34	.212	.185
555-4234	2N4234	TO-5	SP AP	1	40	1	30-150	250	1.80	1.20	1.00
555-4235	2N4235	TO-5	SP AP	1	60	1	30	250	2.10	1.40	1.16
555-4239	2N4239	TO-5	SN GP	.800	100	1A	30	100	1.80	1.20	1.00
555-4248	2N4248								.228	.142	.123
555R4249	2N4249								.285	.177	.154
555R4250	2N4250								.34	.212	.185
555-4258	2N4258	TO-18	SS SH	.625	12	50	30/120	10	.51	.32	.275
555-4275	2N4275	TO-18	SS SH	.500	40	100	35/120	10	.285	.177	.154
555-4354	2N4354	TO-5	GPA	.8	60	500	25	1	.46	.285	.246
555-4355	2N4355	TO-5	GPA	.8	60	500	60	1	.51	.32	.275
555-4356	2N4356	TO-5	GPA	.8	80	500	25	1	.51	.32	.275
555-4400	2N4400	TO-92	SN GP	.310	60	600	20	10	.57	.355	.31
555R4401	2N4401	TO-92	SN GP	.310	60	600	40	10	.71	.445	.385
555-4402	2N4402	TO-92	SP GP	.310	40	600	30	10	.57	.355	.31
555-4403	2N4403	TO-92	SP GP	.310	40	600	60	10	.71	.445	.385
555-4410	2N4410	TO-92	SN GP	.310	120	250	400	10	.90	.56	.485
555-4898	2N4898	TO-66	SP AP	25C	40	1A	20-100	500	1.50	1.00	.83
555-4904	2N4904	TO-3	SP AP	87C	40	5A	25-100	2.5	2.31	1.71	1.50
									1-24	25-99	100-Up
779-0350	2N5060	TO-92	SCR SG		30	.8A			.50	.45	.30
779-0370	2N5062	TO-92	SCR SG		100	.8A			.53	.48	.32
779-0390	2N5064	TO-92	SCR SG		200	.8A			.58	.50	.34
									1-99	100-999	1000-Up
555-5087	2N5087	TO-92	SP GP	.310	50	50	250	1	.76	.47	.41
555-5088	2N5088	TO-92	SN GP	.310	35	50	350	1	.71	.445	.385
555-5089	2N5089	TO-92	SN GP	.310	30	50	450	1	.93	.58	.50
555-5133	2N5133	TO-106	SN AV	.200	20	30	20	10	.20	.124	.108
555-5134	2N5134	TO-106	SN AV	.200	20	100	150	10	.20	.124	.108
555-5135	2N5135	TO-106	SN AV	.300	30	200	50	10	.20	.124	.108
555-5138	2N5138	TO-18	SS	.500	30		50	.1	.20	.124	.108
									1-24	25-49	50-Up
578-6306	2N6306		FS PT						6.32	4.50	3.55
578-6307	2N6307		FS PT						7.12	5.00	4.00
578-6308	2N6308		FS PT						9.22	6.55	5.20
578-6542	2N6542		FS PT						4.77	3.25	2.57
578-6543	2N6543		FS PT						6.05	4.10	3.23
578-6544	2N6544		FS PT						7.87	5.41	4.26
578-6545	2N6545		FS PT						10.10	6.80	5.40
817-9802	DK22		Universal Replacement Kit						EACH 35.45		

Stock Number	Type	Case	Material Function	Specifications	EACH 1-24	25-99	100-Up
817-8905	E150L				1.93	1.30	.94
817-8906	E300L	SP-47B	SL REC	130 PRV - 300 Amp RMS Io	2.77	1.80	1.30
817-7694	E500L				3.20	2.15	1.51
779-0380	EC103A	TO-92	SCR SG	100V .8A	.48	.43	.29
779-0400	EC103B	TO-92	SCR SG	200V .8A	.50	.45	.30
779-0410	EC103D	TO-92	SCR SG	400V .8A	.58	.50	.34
779-0360	EC103Y	TO-92	SCR SG	30V .8A	.45	.40	.27
555-9912	FCD-810				2.13	1.50	1.10
817-9800	FE100				2.38	1.58	1.32
555-9903	FLV104				2.50	2.00	1.50
555-9906	FLV-110				.50	.50	.37
555-9918	FND-70				3.85	3.50	2.80
555-9909	FPT-100				1.17	.82	.61
779-5061	GT32				.33	.28	.18
779-3935	GT35				.33	.28	.18
779-3940	GT40	DO-7	DIAC		.33	.28	.18
779-3950	GT50				.35	.30	.20
779-3960	GT60				.38	.32	.22
817-7701	IR6B				2.63	1.89	1.32
817-8909	IR106A1				.95	.85	.60
817R8910	IR106B1				1.06	.95	.66
817-7756	IR106D1	SP-67	SCR	300 PRV - 2 Amp Io	1.30	1.18	.83
817-7757	IR106D1				1.51	1.37	.96
817-8912	IR106F1	SP-67	SCR	50 PRV - 2 Amp Io	.93	.82	.58
817-8913	IR106Y1	SP-67	SCR	30 PRV - 2 Amp Io	.90	.79	.56
817-7766	IR122A				1.80	1.44	1.00
817-7762	IR122B				1.95	1.58	1.10
817-7764	IR122C				2.18	1.84	1.32
817-7768	IR122D				2.43	2.10	1.49

Stock Number	Type	Description	VCBO	VCEO	IC	PD	EACH 1-24	25-99	100-Up
578-0401	IR401	NPN-PT	400	400	5	100	6.02	3.61	2.83
578-0402	IR402	NPN-PT	700	400	7	125	9.00	5.41	4.24
578-0403	IR403	NPN-PT	400	400	7	125	11.17	6.71	5.26
578-0409	IR409	NPN-PT	400	400	7	125	4.45	2.66	2.09
578-0410	IR410	NPN-PT	300	200	7	100	4.45	2.66	2.09
578-0411	IR411	NPN-PT	300	300	7	100	5.32	3.19	2.50
578-0413	IR413	NPN-PT	400	400	5	100	6.02	3.61	2.83
578-0423	IR423	NPN-PT	400	400	7	125	9.00	5.41	4.24
578-0424	IR424	NPN-PT	700	500	7	125	10.92	6.55	5.14
578-0425	IR425	NPN-PT	700	500	7	125	13.22	7.93	6.22
578-0430	IR430	NPN-PT	400	400	7	125	12.40	7.45	5.84
578-0431	IR431	NPN-PT	400	400	7	125	11.22	10.10	7.92

Stock Number	Type	Case	Material Function	Specifications	EACH 1-24	25-99	100-Up
817-9801	IR2160				1.95	1.56	1.10
817-9750	IRTR50				3.55	2.84	1.98
817-9751	IRTR51			G. P. PNP Small Signal Amp	1.18	.94	.66
817-9752	IRTR52			PNP Large Sig. Amp/Med. SPD SW	1.98	1.58	1.10
817-9753	IRTR53			G. P. PNP Switch & Amp D. C. to VHF	1.38	1.10	.78
817-9754	IRTR54			Med. Pwr NPN Audio Amp/Switch	1.33	1.06	.74
817-9755	IRTR55			Med. Pwr PNP Audio Amp/Switch	3.03	2.42	1.65
817-9756	IRTR56			Hi-Pwr NPN Amp/Med. SPD Switch	3.28	2.62	1.84
817-9759	IRTR59			Med. Pwr Hi-Volt NPN	4.40	3.52	2.47
817-9760	IRTR60			Hi-Pwr Hi-Voltage	2.75	2.20	1.54
817-9761	IRTR61			Plastic NPN Darlington Amp	14.98	11.98	7.98
817-9769	IRTR69			Med. Power Amp & Audio Driver	1.18	.94	.66
817-9772	IRTR72			Med. Power Amp & Audio Driver	2.75	2.20	1.54
817-9773	IRTR73			Sil. Hi-Pwr Audio Amp Output	3.28	2.62	1.84
817-9776	IRTR76			Sil. Hi-Pwr Audio Amp	2.90	2.32	1.62
817-9777	IRTR77			Hi-V TV Video Out Amp	3.28	2.62	1.84
817-9778	IRTR78			NPN Sil. Hi-V Video/Audio Out	4.33	3.46	2.44
817-9779	IRTR79			Sil. Audio Power Amplifier	2.90	2.32	1.62
817-9781	IRTR81			Audio Power Amplifier	2.50	2.00	1.40
817-9782	IRTR82			Audio Power Amplifier	4.40	3.52	2.48
817-9784	IRTR84			Audio Power Amplifier	2.00	1.60	1.12
817-9785	IRTR85			Audio Driver, Preamp Output	1.50	1.20	.84
817-9787	IRTR87			Audio Preamp, Driver, Video Amp	2.25	1.80	1.26
817-9788	IRTR88			Audio Preamp, Driver, Video Amp	2.50	2.00	1.40

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Stock Number	Type	Case	Material Function	Specifications	EACH 1-24	25-99	100-Up
817-9792	IRTR92			AF Output for Auto Receivers	3.45	2.76	1.93
817-9794	IRTR94MP			Audio Amplifier	7.38	5.90	4.20
817-9795	IRTR95			RF Amp Mixer, Osc. IF Amp	2.13	1.70	1.19
					1-9	10-24	25-Up
817-8918	J29B1	SP-34C	SL-REC	36 VAC Input - 1.5 Amp DC Io	9.20	6.14	4.68
817-8921	J29B5	SP-34G	SL-REC	36 VAC Input - 4.8 Amp DC Io	20.76	17.30	12.72
817-8919	J29B8	SP-34E	SL-REC	36 VAC Input - 8.4 Amp DC Io	28.12	23.43	17.74
817-8925	J58B8	SP-34K	SL-REC	72 VAC Input - 8.4 Amp DC Io	40.17	34.24	30.12
817-8926	J116B04	SP-34I	SL-REC	144 VAC Input - 0.4 Amp DC Io	11.79	10.66	9.22
817-8927	J116B1	SP-34M	SL-REC	144 VAC Input - 1.5 Amp DC Io	17.58	14.90	13.13
817-8928	J116B5	SP-34N	SL-REC	144 AC Input - 4.8 Amp DC Io	51.87	44.42	39.01
817-8930	J135B1		SL-REC-FW		21.20	18.12	15.91
					1-24	25-99	100-Up
817-8947	KSA5DAF				7.09	4.72	3.33
817-8948	KSA6DBF	SP-98	SL-TPN	156V RMS Max. Oper. - for Rect 60A Rated	7.71	5.13	3.62
817-8950	KSA8DBF				10.25	6.83	4.88
817-8952	KSA10DBF				11.83	7.88	5.53
817-8953	KSA11DBF				12.65	8.43	5.95
817-8954	KSA12DBF	SP-98	SL-TPN	316V RMS Max. Oper. - for Rect 60A Rated	13.43	8.95	6.24
817-0110	KY2DPF				2.07	1.09	.96
817-0120	KY5DPF				2.57	1.40	1.20
817-0130	KY6DPF				2.70	1.52	1.30
817-0140	KY10DPF				3.42	1.94	1.63
817-8964	KZ1DPF	SP-99	SL-TPN	26V RMA Max. Oper. - for Rect 16A Rated	2.08	1.38	.98
817-8967	KZ4DPF				2.96	2.37	1.39
817-8968	KZ5DPF				3.29	2.18	1.55
817-8969	KZ6DPF	SP-99	SL-TPN	156V RMS Max. Oper. - for Rect 16A Rated	3.61	2.40	1.69
817-8972	KZ9DPF	SP-99	SL-TPN	234V RMS Max. Oper. - for Rect 16A Rated	4.52	3.02	2.15
817-8973	KZ10DPF	SP-99	SL-TPN	260V RMS Max. Oper. - for Rect 16A Rated	4.81	3.20	2.29
779-2003	L200E3	TO-92	Logic Triac	200V - .8A	1.35	1.20	.81
779-2005	L200E5	TO-92	Logic Triac	200V - .8A	1.13	1.00	.67
779-4003	L400E3	TO-92	Logic Triac	200V - .8A	1.50	1.33	.89
779-4005	L400E5	TO-92	Logic Triac	200V - .8A	1.25	1.10	.74
779-0213	L2001L3		Logic Triac	200V - 1A, Thermotab 3mA Gate	1.88	1.65	1.11
779-0215	L2001L5		Logic Triac	200V - 1A, Thermotab 5mA Gate	1.65	1.45	.97
779-0219	L2001L9		Logic Triac	200V - 1A, Thermotab 25mA Gate	1.18	1.05	.71
779-6010	L2001M3	TO-5	Logic Triac	200V - 1A, Thermotab 3mA Gate	1.88	1.65	1.11
779-5305	L2001M5	TO-5	Triac	120V RMS Line 15 W-5mA Lgt	1.65	1.45	.97
779-5309	L2001M9	TO-5	Triac	240V RMS Line 300 W-3mA Lgt	1.18	1.05	.71
779-0413	L4001L3		Logic Triac	400V - 1.6A Thermotab 3mA Gate	2.05	1.83	1.23
779-0415	L4001L5		Logic Triac	400V - 1.6A Thermotab 5mA Gate	1.83	1.63	1.09
779-0419	L4001L9		Logic Triac	400V - 1.6A Thermotab 25mA Gate	1.38	1.23	.82
779-4013	L4001M3	TO-5	Logic Triac	400V - 1.6A 3mA Gate	2.05	1.83	1.23
779-4015	L4001M5	TO-5	Logic Triac	400V - 1.6A 5mA Gate	1.83	1.63	1.09
779-4019	L4001M9	TO-5	Logic Triac	400V - 1.6A 25mA Gate	1.38	1.23	.82

Stock Number	Type	Case	Mat. Funct.	Maximum Ratings: Dissipation Watts	Col'l'r to Base Volts	Col'l'r Curr. mA	Beta HFE@Ic: Min/Max.	mA	EACH 1-99	100-999	1000-Up
555-8515	MPS6515	TO-92	SN-GP	.310	40	100	250/500	2	.62	.385	.32
555-8531	MPS6531	TO-92	SN-GP	.310	60	600	60/120	10	.71	.445	.37
555-8534	MPS6534M	TO-92	SN-GP	.310	40	600	60/110	10	.76	.47	.40

Stock Number	Type	Case	Material Function	Specifications	EACH 1-24	25-99	100-Up
779-6036	Q2001L3		Triac	Thermotab 200V - 1.6A 10mA Gate	1.28	1.13	.75
779-6140	Q2006L4		Triac	Thermotab 200V - 6.0A 10mA Gate	1.50	1.33	.89
779-6141	Q2006LT		Triac	Thermotab 200V - 6.0A 25mA Gate	1.70	1.50	1.00
779-6180	Q2008L4		Triac	Thermotab 200V - 8.0A Triggered	1.58	1.40	.94
779-6200	Q2010		Triac	⅜ Swedge 200V - 10A	1.90	1.68	1.12
779-6190	Q2010L4		Triac	Thermotab 200V - 10A 25mA Gate	1.70	1.50	1.00
779-6233	Q2015		Triac	⅜ Swedge 200V - 15A	3.05	2.70	1.80
779-6263	Q2015L5		Triac	Thermotab 200V - 15A 50mA Gate	2.88	2.55	1.70
779-6236	Q2015T		Triac	⅜ Swedge 200V - 15A Triggered	3.40	3.00	2.00
779-0120	Q2025V		Triac	200V - 25A ¾" Hex Stud	5.18	4.58	3.07
779-0150	Q2025VT		Triac	200V - 25A ¾" Hex Stud Triggered	5.45	4.83	3.24
779-0100	Q2025Y		Triac	200V - 25A ¾" Swedge	4.95	4.38	2.94
779-0130	Q2025YT		Triac	200V - 25A ¾" Swedge Triggered	5.23	4.63	3.11
779-0110	Q2025Z	TO-3	Triac	200V - 25A ¾" Swedge	5.18	4.58	3.07
779-0140	Q2025ZT		Triac	200V - 25A Triggered	5.45	4.83	3.24
779-4468	Q2040C	SP-116	Triac	200V - 57A 100mA Curr.	8.08	7.15	4.78
779-6058	Q4001P3	TO-5	Triac	400V 1.6A 10mA Gate	1.43	1.25	.84
779-6063	Q4003L3		Triac	Thermotab 400V 3.0A 10mA Gate	1.53	1.35	.90
779-6142	Q4006L4		Triac	Thermotab 400V 6.0A 25mA Gate	1.65	1.45	.97
779-6144	Q4006LT		Triac	Thermotab 400V 6.0A Triggered	1.88	1.65	1.10
779-6182	Q4008L4		Triac	Thermotab 400V - 8A 25mA Gate	1.75	1.55	1.04
779-6183	Q4008LT		Triac	Thermotab 400V - 8A Triggered	1.98	1.75	1.17
779-6207	Q4010		Triac	⅜" Swedge 400V - 10A	2.05	1.83	1.22
779-6192	Q4010L4		Triac	Thermotab 400V - 10A 25mA Gate	1.88	1.65	1.10
779-6239	Q4015		Triac	⅜" Swedge 400V - 15A	3.83	3.38	2.25
779-6265	Q4015L5		Triac	Thermotab 400V - 15A 50mA Gate	3.53	3.13	2.09
779-5266	Q4015LT		Triac	Thermotab 400V - 15A Triggered	3.75	3.33	2.22
779-0210	Q4025V		Triac	400V - 25A ¾" Hex Stud	5.68	5.03	3.38
779-0180	Q4025VT		Triac	400V - 25A ¾" Hex Stud Triggered	6.00	5.25	3.56
779-0190	Q4025Y		Triac	400V - 25A ¾" Swedge	5.45	4.83	3.24
779-0160	Q4025YT		Triac	400V - 25A ¾" Swedge Triggered	5.78	5.10	3.43
779-0200	Q4025Z	TO-3	Triac	400V - 25A ¾" Swedge	5.68	5.03	3.38
779-0170	Q4025ZT	TO-3	Triac	400V - 25A ¾" Swedge Triggered	6.00	5.25	3.56
779-6289	Q4040		Triac	¾ Pressfit 400V - 40A	9.25	8.20	5.48
779-4672	Q4040C	TO-3	Triac	¾ Pressfit 400V - 40A	9.63	8.50	5.68
779-0300	Q6025V		Triac	600V - 25A ¾" Hex Stud	7.78	6.88	4.62
779-0330	Q6025VT		Triac	600V - 25A ¾" Hex Stud Triggered	8.20	7.25	4.87
779-0280	Q6025Y		Triac	600V - 25A ¾" Swedge	7.43	6.58	4.42
779-0310	Q6025YT		Triac	600V - 25A ¾" Swedge Triggered	7.85	6.95	4.67
779-0290	Q6025Z	TO-3	Triac	600V - 25A ¾" Swedge	7.78	6.88	4.62
779-0320	Q6025ZT	TO-3	Triac	600V - 25A ¾" Swedge Triggered	8.20	7.25	4.87
779-6375	S2003LS1		SCR	Thermotab 200V - 3A 50uA Gate	.98	.86	.56
779-6625	S2015L		SCR	Thermotab 200V - 15A	2.03	1.80	1.20
779-6464	S4008LS2		SCR	Thermotab 400V - 8A 200uA Gate	1.83	1.63	1.09
817R9803	TAS100			Hi-Power Audio Amp & Switch	1.33	1.06	
817-9701	TR01			Med. Pwr Low-V Audio Amp	2.38	1.90	1.32
817-9702	TR02			Hi-Power & Gain Amp & Switch	1.18	.94	.88
817-9703	TR03			Med. Power Hi-Gain Amp & Switch	2.38	1.90	1.32
817-9705	TR05			Med. Pwr Gen. Purpose Amp	1.45	1.16	.81
817-9708	TR08			Low Power General Purpose Amp	1.45	1.16	.81
817-9712	TR12			Low Pwr Hi-Gain, Low Noise	1.33	1.06	.70
817-9717	TR17			Hi Speed Switch	1.70	1.36	.96
817-9720	TR20			Hi Speed Switch	1.25	1.00	.70
817-9721	TR21			Hi-Voltage Power Transistor	1.40	1.12	.78
817-9723	TR23			Hi-Voltage Power Transistor	3.80	3.04	2.13
817-9724	TR24			Small Sig. NPN, Low Noise Amp	2.10	1.68	1.18
817-9725	TR25			Med. Current Switch, Audio to RF	1.98	1.58	1.10
817-9727	TR27			Hi-Voltage PNP Power	9.85	7.88	5.51
817-9728	TR28			Med. Curr. PNP Switch & Audio RF	2.23	1.78	1.26
817-9729	TR29			Hi-Power NPN Audio Amp/Hi-Freq. SW	6.35	5.08	3.57
817-9730	TR30			PNP Small Signal Low Noise Amp	2.38	1.90	1.32

Stock Number	Type	Case	Material Function	Specifications	EACH 1-99	100-999	1000-Up
976-0500	V350		Rect	50 PRV - 3A RMS Io	.48	.35	.29
976-0505	V351		Rect	100 PRV - 3A RMS Io	.49	.36	.30
976-0510	V352		Rect	200 PRV - 3A RMS Io	.51	.37	.31
976-0515	V354		Rect	400 PRV - 3A RMS Io	.53	.38	.32
976-0520	V356		Rect	600 PRV - 3A RMS Io	.57	.40	.34
976-0525	V358		Rect	800 PRV - 3A RMS Io	.63	.46	.39
976-0530	V3510		Rect	1000 PRV - 3A RMS Io	.81	.58	.49
					1-24	25-99	100-Up
976-1412	VB50	SP-119	S Rect	5K PRV-50A RMS Io	3.90	2.40	1.82
976-1540	VC60	SP-120	S Rect	6K PRV - 1.5A RMS Io	8.75	6.50	5.00
976-1560	VC80	SP-120	S Rect	8K PRV - 1A RMS Io	9.63	7.15	5.50
976R3201	VE08/W111		S Rec-B	50 PRV - 1A RMS Io	1.35	1.04	.85
976R2010	VE18	SP-121	S Rec-B	100 PRV - 1A RMS Io	1.43	1.10	.90
976-2019	VE27	SP-121	S Rec-B	200 PRV - 1A RMS Io	1.75	1.46	1.21

Stock Number	Type	Case	Material Function	Specifications	EACH 1-24	25-99	100-Up
976-2020	VE28	SP-121	S Rec-B	200 PRV - 1A RMS Io	1.53	1.21	1.00
976-2042	VE47	SP-121	S Rec-B	400 PRV - 1A RMS Io	2.02	1.58	1.32
976-2050	VE48	SP-121	S Rec-B	400 PRV - 1A RMS Io	1.60	1.32	1.10
976-2074	VE67	SP-121	S Rec-B	600 PRV - 1A RMS Io	2.35	1.93	1.60
976-2090	VE68	SP-121	S Rec-B	600 PRV - 1A RMS Io	1.88	1.64	1.35
976-2720	VF25/40	SP-122A	S Rect	40 PRV - 5A RMS Io	10.68	7.20	6.10
976-3310	VG10		Rect	10,000 PRV - 25mA RMS Io	2.18	1.49	1.18
976-3700	VH048		Bridge Rect	50 PRV - 6A RMS Io	2.53	1.73	1.43
976R2850	VH148	SP-123	S Rec-B	100 PRV - 6A RMS Io	2.98	1.93	1.58
976-3725	VH148/TT		S Rec-B	100 PRV - 6A RMS Io	2.93	2.03	1.68
976R2852	VH247	SP-123	S Rec-B	200 PRV - 6A RMS Io	4.10	2.48	2.04
976R2853	VH248	SP-123	S Rec-B	200 PRV - 6A RMS Io	3.30	2.15	1.75
976R2854	VH447	SP-123	S Rec-B	400 PRV - 6A RMS Io	4.48	2.85	2.34
976-2856	VH448	SP-123	S Rec-B	400 PRV - 6A RMS Io	3.83	2.49	2.03
976R2858	VH647	SP-123	S Rec-B	600 PRV - 6A RMS Io	5.18	3.29	2.70
976-2860	VH648	SP-123	S Rec-B	600 PRV - 6A RMS Io	4.45	2.88	2.35
976-2905	VK448		Bridge Rect	400 PRV - 10A RMS Io	3.83	2.74	2.23
976-0550	VK048		Bridge Rect	50 PRV - 30A RMS Io	3.92	3.27	2.62
976-0555	VK148		Bridge Rect	100 PRV - 30A RMS Io	4.02	3.35	2.68
976-0560	VK248		Bridge Rect	200 PRV - 30A RMS Io	4.14	3.45	2.76
976-0565	VK448		Bridge Rect	400 PRV - 30A RMS Io	4.31	3.59	2.88
976-0570	VK648		Bridge Rect	600 PRV - 30A RMS Io	4.60	3.83	3.05
976-0575	VK848		Bridge Rect	800 PRV - 30A RMS Io	5.27	4.39	3.48
976-0580	VK1048		Bridge Rect	1000 PRV - 30A RMS Io	5.37	4.64	3.68
976-0450	VM048	Mini Dip	Bridge Rect	50 PRV - 1A RMS Io	.88	.73	.48
976-0455	VM18	Mini Dip	Bridge Rect	100 PRV - 1A RMS Io	.92	.77	.52
976-0460	VM28	Mini Dip	Bridge Rect	200 PRV - 1A RMS Io	1.00	.83	.55
976-0465	VM48	Mini Dip	Bridge Rect	400 PRV - 1A RMS Io	1.07	.89	.58
976-0470	VM68	Mini Dip	Bridge Rect	600 PRV - 1A RMS Io	1.16	.97	.64
976-0475	VM88	Mini Dip	Bridge Rect	800 PRV - 1A RMS Io	1.55	1.29	.85
976-0480	VM108	Mini Dip	Bridge Rect	1000 PRV - 1A RMS Io	1.68	1.40	.95
976-3835	VS048		Bridge Rect	50 PRV - 2A RMS Io	1.68	1.09	.89
976-0310	VS148		Bridge Rect	100 PRV - 2A RMS Io	1.75	1.16	.94
976-3114	VS148X	SP-123	S Rec-B	100 PRV - 2A RMS Io	2.80	1.81	1.50
976R3130	VS247	SP-123	S Rec-B	200 PRV - 2A RMS Io	2.35	1.52	1.27
976R3131	VS248	SP-123	S Rec-B	200 PRV - 2A RMS Io	1.88	1.27	1.05
976R3140	VS447	SP-123	S Rec-B	400 PRV - 2A RMS Io	2.70	1.65	1.39
976R3141	VS448	SP-123	S Rec-B	400 PRV - 2A RMS Io	2.20	1.39	1.15
976-3148	VS647	SP-123	S Rec-B	600 PRV - 2A RMS Io	3.10	2.03	1.73
976-3152	VS648	SP-123	S Rec-B	600 PRV - 2A RMS Io	2.58	1.73	1.47
					1-99	100-999	1000-Up
976-0400	VSK120		Schottky Rect	20 PRV - 1A RMS Io	2.60	1.80	1.38
976-0405	VSK130		Schottky Rect	30 PRV - 1A RMS Io	3.52	2.35	1.87
976-0410	VSK320		Schottky Rect	20 PRV - 3A RMS Io	4.20	2.80	2.28
976-0415	VSK330		Schottky Rect	30 PRV - 3A RMS Io	5.13	3.41	2.77
976-0420	VSK520		Schottky Rect	20 PRV - 5A RMS Io	4.39	2.93	2.35
976-0425	VSK530		Schottky Rect	30 PRV - 5A RMS Io	5.57	3.75	2.96
976-0430	VSK1520		Schottky Rect	20 PRV - 15A RMS Io	5.34	3.56	2.85
976-0435	VSK1530		Schottky Rect	30 PRV - 15A RMS Io	6.87	4.58	3.67
976-3160	VT200	SP-124	S Rec-B	200 PRV - 25A RMS Io	7.63	5.35	3.95
976R3161	VT200/S	SP-125	S Rec-B	200 PRV - 25A RMS Io	8.25	5.75	4.25
976R3162	VT200/T	SP-126	S Rec-B	200 PRV - 25A RMS Io	8.00	5.60	4.15
976-3170	VT400	SS-124	S Rec-B	400 PRV - 25A RMS Io	10.25	7.00	5.30
976R3171	VT400/S	SP-125	S Rec-B	400 PRV - 25A RMS Io	10.88	7.40	5.60
976-3172	VT400/T	SP-126	S Rec-B	400 PRV - 25A RMS Io	10.63	7.25	5.50
976-3180	VT600	SP-124	S Rec-B	600 PRV - 25A RMS Io	13.88	9.85	7.10
976R3181	VT600/S	SP-125	S Rec-B	600 PRV - 25A RMS Io	14.50	10.25	7.40
976-3182	VT600/T	SP-126	S Rec-B	100 PRV - 25A RMS Io	14.25	10.10	7.30
976-3200	W110	SP-121	S Rec-B	25 PRV - 1A RMS Io	1.27	1.00	.81
817-7100	5A2	SP-56	S Rect	200 PRV - 1A RMS Io	.68	.45	.32
817-7110	5A5	SP-56	S Rect	500 PRV - 1A RMS Io	.95	.63	.45
817-7114	5A6	SP-56	S Rect	600 PRV - 1A RMS Io	1.10	.73	.52
					1-24	25-99	100-Up
817-7170	10B4		Rect	100 PRV - 1.3A RMS Io	1.50	1.20	.70
817-7184	10C6		Rect	600 PRV - 1.3A RMS Io	1.88	.95	.88
817-7190	10D2	DO-39	S Rect	200 PRV - 1A RMS Io	.37	.34	.30
817-7192	10D4	DO-39	S Rect	400 PRV - 1A RMS Io	.47	.43	.39
817-7194	10D6	DO-39	S Rect	600 PRV - 1A RMS Io	.58	.53	.48
817-7196	10D8	DO-39	S Rect	800 PRV - 1A RMS Io	.98	.89	.83
817-7198	10D10	DO-39	S Rect	1000 PRV - 1A RMS Io	1.39	1.26	1.12
817-8283	16RC40A	TO-48	SCR	400 PRV - 16A RMS Io	13.53	9.02	6.36
817-8284	16RC60A	TO-48	SCR	600 PRV - 16A RMS Io	16.54	13.39	9.73
817-8285	16RC80A	TO-48	SCR	800 PRV - 16A RMS Io	22.55	18.38	15.90
817-8286	16RC100A	TO-48	SCR	1000 PRV - 16A RMS Io	32.60	26.41	23.00
817-8287	18DB2A		Rect Br	200 PRV - 1.8A RMS Io	3.10	2.12	1.49
817-8306	18DB4A		Rect Br	400 PRV - 1.8A RMS Io	4.28	2.85	2.04
817-8310	18DB6A		Rect Br	600 PRV - 1.8A RMS Io	4.83	3.22	2.37
817-8314	18DB10A		Rect Br	1000 PRV - 1.8A RMS Io	8.83	5.88	4.14
817-7300	20A05	SP-56	S Rect	500 PRV - 2A RMS Io	.80	.53	.38
817-8341	20A1	SP-56	S Rect	100 PRV - 2A RMS Io	.88	.56	.40
817-7306	20A2	SP-56	S Rect	200 PRV - 2A RMS Io	.98	.65	.46
817-8344	20A4	SP-56	S Rect	400 PRV - 2A RMS Io	1.23	.82	.58
817-8345	20A5	SP-56	S Rect	500 PRV - 2A RMS Io	1.40	1.12	.64
817-8346	20A6	SP-56	S Rect	600 PRV - 2A RMS Io	1.58	1.05	.73
817-8348	20A10	SP-56	S Rect	1000 PRV - 2A RMS Io	2.73	1.82	1.25
817-8370	30S1	SP-60	S Rect	100 PRV - 3A RMS Io	.64	.58	.36
817-8371	30S2	SP-60	S Rect	200 PRV - 3A RMS Io	.69	.63	.44
817-8372	30S3	SP-60	S Rect	300 PRV - 3A RMS Io	.81	.74	.53
817-8373	30S4	SP-60	S Rect	400 PRV - 3A RMS Io	.99	.90	.64
817-8374	30S5	SP-60	S Rect	500 PRV - 3A RMS Io	1.10	1.00	.71
817-8375	30S6	SP-60	S Rect	600 PRV - 3A RMS Io	1.36	1.23	.86
817-8377	30S10	SP-60	S Rect	1000 PRV - 3A RMS Io	2.85	2.63	1.95
817-8399	40HF10		S Rect	100 PRV - 40A RMS Io	3.23	2.05	1.52
817-8402	40HF30	SP-68	S Rect	300 PRV - 40A RMS Io	6.05	4.03	2.85
817-8401	40HFR30	SP-68	S Rect	300 PRV - 40A RMS Io Reverse	6.05	4.03	2.85
817-8403	40HF40	SP-68	S Rect	400 PRV - 40A RMS Io	7.35	4.90	3.47
817-8405	40HF60	SP-68	S Rect	600 PRV - 40A RMS Io	9.93	6.62	4.66
817-8406	40HFR60	SP-68	S Rect	600 PRV - 40A RMS Io Reverse	9.93	6.62	4.66
817-8409	40HF100	SP-68	S Rect	1000 PRV - 40A RMS Io	13.46	10.40	7.94
					1-9	10-Up	
817-8455	40RCS40	SP-69	SCR	400 PRV - 63A RMS Io	24.94	15.88	
817-8458	40RCS70	SP-70	SCR	700 PRV - 63A RMS Io	39.90	26.46	
					1-24	25-99	100-Up
817-9050	70H10A		Rect	100 PRV - 70A RMS Io	6.28	4.18	2.98
817-9055	70H20A		Rect	200 PRV - 70A RMS Io	8.28	5.52	3.91
817-9065	70H80A		Rect	300 PRV - 70A RMS Io	10.20	6.80	4.81
817-9066	70HR30A		Rect	300 PRV - 70A RMS Io Reverse	10.20	6.80	4.81
817-9070	70H40A		Rect	400 PRV - 70A RMS Io	12.00	8.00	5.65
817-9080	70H60A		Rect	600 PRV - 70A RMS Io	12.58	9.98	7.39
817-9079	70HR60A		Rect	600 PRV - 70A RMS Io Reverse	12.58	9.98	7.39
817-9081	70H100A		Rect	1000 PRV - 70A RMS Io	19.64	15.54	11.58
817-9085	150K30A	Stud Mount	Rect	300 PRV - 150A	22.87	18.48	16.10
817-9090	150KR30A	Stud Mount	Rect	300 PRV - 150A Reverse	22.87	18.48	16.10
817-9095	150K60A	Stud Mount	Rect	600 PRV - 150A	32.70	26.57	23.05
817-9100	150KR60A	Stud Mount	Rect	600 PRV - 150A Reverse	32.70	26.57	23.05
					1-9	10-Up	
817-9105	300U30A	Stud Mount	Rect	300 PRV - 300A	25.18	17.64	
817-9110	300UR30A	Stud Mount	Rect	300 PRV - 300A Reverse	25.18	17.64	
817-9115	300U60A	Stud Mount	Rect	600 PRV - 300A	38.95	27.56	
817-9120	300UR60A	Stud Mount	Rect	600 PTV - 300A Reverse	38.95	27.56	

Integrated Circuit Directory

Stock No.	Type	Circuit Function	EACH 1-24	25-99	100-Up
569-2900	CA3018	Linear Transistor Array	2.08	1.21	1.05
569-2916	CA3046	3-Transistor Array & Diff Pr	1.95	1.21	1.05
569-1321	LM301AD	Linear General Purpose Op Amp	1.88	1.30	1.10
569-1322	LM301AH	Linear General Purpose Op Amp	1.13	.78	.65
569-1323	LM301AN	Linear General Purpose Op Amp	1.01	.72	.60
569-1328	LM307H	Linear Comp Op Amp	1.13	.78	.65
569-1329	LM307N	Linear General Purpose Op Amp	1.01	.72	.60

See Page 4 for Explanation of Abbreviations and Symbols

Integrated Circuit Directory

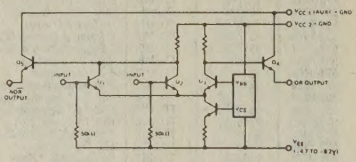
Stock Number	Type		Circuit Function	EACH 1-24	25-99	100-Up
569-1330	LM308H	Linear	Super Beta Op Amp	3.00	2.20	1.85
569-1278	LM309K	Linear	5V Regulator	5.63	4.00	3.35
569-1333	LM311H	Linear	Voltage Comparator	3.38	2.55	2.00
551-7916	MC1458CPI	Linear	Dual Hi-Perf Op Amp	2.00	1.30	1.00
552-1200	11C01FC	ECL	High Speed Dual 5-4 Input Or/Nor	18.30	15.40	12.50
552-1202	11C05DC	ECL	1GHz Counter Divide by 4	87.90	74.35	60.00
552-1204	11C06DC	ECL	UHF Prescaler	21.97	18.57	15.00
552-1206	11C24DC	ECL	Dual TTL VCM	3.75	2.40	2.20
552-1208	11C44DC	ECL	Phase Frequency Detector	3.75	2.40	2.20
552-1210	11C58DC	ECL	VCM	5.45	3.84	3.10
552-1608	93L415PC	TTL	RAM Low Pwr 1024 Soplanar RAM	33.00	27.50	22.00
569R1580	709DC	Linear	General Purpose Op Amp	1.38	1.05	.90
569-1540	709HC	Linear	Gen Purpose Op Amp	1.38	1.05	.90
569-1660	710DC	Linear	Hi Speed Comparator	1.50	1.05	.90
569-1665	710PC	Linear	Hi Speed Comparator	.98	.72	.55
569-1710	711DC	Linear	Dual Comparator	1.50	1.05	.90
569-1730	720DC	Linear	AM Radio Systems	2.43	1.63	1.35
569R1750	723DC	Linear	Voltage Regulator	3.13	2.34	1.95
569-1760	723HC	Linear	Voltage Regulator	3.13	2.34	1.95
552-1300	725EHC	Linear	Voltage Regulator	11.25	9.00	7.50
569-1840	725HC	Linear	Instrumentation Op Amp	7.75	4.80	4.00
569-2002	734DC	Linear	Precision Comparator	6.28	3.77	3.28
569-2040	739DC	Linear	Dual L/N Audio Preamp	5.50	3.30	2.75
569-2045	739PC	Linear	Dual L/N Audio Preamp	2.75	1.95	1.65
569-2060	740HC	Linear	FET Op Amp	14.93	11.94	9.95
569R2145	741DC	Linear	Freq Comp Op Amp	1.25	.98	.78
552-1402	741EHC	Linear	Freq Comp Op Amp	3.75	2.55	1.95
552-1404	741EDC	Linear	Freq Comp Op Amp	4.22	2.95	2.25
569-2100	741HC	Linear	Freq Comp Op Amp	1.30	.83	.72
552-1400	741PC	Linear	Freq Comp Op Amp	1.00	.60	.50
569-2160	741TC	Linear	Freq Comp Op Amp	1.05	.70	.61
569-2164	742DC	Linear	Zero Crossing AC Trig	4.43	3.54	2.95
569-2240	747DC	Linear	Dual Freq Comp Op Amp	8.50	5.40	4.50
552-1406	747EHC	Linear	Dual Freq Comp Op Amp	11.25	7.75	5.95
569-2270	748DC	Linear	Hi Perf Op Amp	2.00	1.20	1.10
569-2380	749DDC	Linear	Dual Audio Preamplifier	4.63	2.75	2.30
569-2443	760DC	Linear	High Speed Comparator	6.28	3.77	3.28
569R2700	796HC	Linear	Double Bal MCD/Demod	1.98	1.22	1.06
551-9378	914HC	RTL	Gate Dual 2-input	4.15	2.60	1.95
551-9422	930DC	DTL	Dual 4 Gate/Exp	.93	.74	.62
551-9426	932DC	DTL	Dual 4 Buffer	1.04	.84	.70
551-9428	933DC	DTL	Dual 4 Extender	.93	.74	.62
551-9432	936DC	DTL	Hex Inverter	1.09	.88	.73
551-9440	945DC	DTL	RS Clocked FF	1.26	1.01	.84
551-9442	946DC	DTL	Quad 2 Gate	1.03	.82	.69
551-9446	949DC	DTL	Quad 2 Gate	1.03	.82	.69
551-9394	960DC	CUL	Buffer Decoder	15.70	12.55	10.50
551-9397	962DC	DTL	Triple 3 Gate	1.03	.82	.69
552-1500	1103DC	MOS/ISO	1024 Bit Dynamic RAM 300Ns	10.12	6.70	5.58
552-1502	1103ID	MOS/ISO	1024 Bit Dynamic RAM 180Ns	12.10	10.25	7.04
552-1520	2533PC	MOS/ISO	1024 Bit Static S/R 1.5 MHz	12.37	8.70	7.25
569-3100	3100DL	MGT	Dual 5-Input Gate	13.50	7.50	6.00
569-3101	3101DL	MGT	Dual JK FF	12.00	10.00	8.00
569-3200	3257ADC	SGT	5 x 7 x 64 ASCII Char Gen	21.00	14.00	10.00
569-3204	3258DDC	SGT	5 x 7 x 64 Character Gen 1000NS	21.00	14.00	10.00
552-1532	3260CDC	SGT	7 x 9 x 64 Char Gen 1000NS	27.30	18.20	13.00
552-1534	3262ADC	ISO	TV Sync Gen Color/BW	24.40	19.50	16.25
552-1536	3262BDC	ISO	TV Sync Gen-Gen Lock	33.30	26.66	22.22
569-3304	3325HC	SGT	4 x 64 2 Phase Dynamic SR	10.25	5.50	4.60
569-3305	3326HC	MGT	3 x 66 2 Phase Dyn Shift Reg	10.00	5.40	4.40
569-3306	3326HL	MGT	3 x 66 2 Phase Dyn Shift Reg	12.38	6.60	5.50
569-3307	3329HC	SGT	512 Bit 2 Phase Dyn SR	11.00	5.85	4.90
569-3308	3330HC	SGT	480 Bit 2 Phase Dyn SR	11.00	5.85	4.90
569-3309	3331HC	SGT	500 Bit 2 Phase Dyn SR	11.00	5.85	4.90
552-1504	3341APC	SGT	4 x 64 FIFO Memory IMHz	10.25	6.55	5.50
552-1506	3341PC	SGT	4 x 64 FIFO Memory 700KHz	10.25	6.55	5.50
552-1512	3342PC	SGT	Quad 64 Bit Static SR	8.50	5.10	4.25
552-1514	3347PC	SGT	Quad 80 Bit Static SR	7.37	5.10	4.25
552-1516	3348DC	SGT	Hex 32 Bit Stat Shift Reg	11.37	8.35	6.65
552-1518	3349PC	SGT	Hex 32 Bit Stat Shift Reg	7.37	5.10	4.25
552-1522	3355PC	SGT	1024 Bit Stat SR 4MHz	13.60	10.90	9.05
569-3319	3383HC	SGT	256 Bit 2 Phase Dyn SR	10.38	5.50	4.60
569-3722	3750DC	SGT	10 Bit D/A Converter	16.50	14.50	12.50
569-3723	3750DL	SGT	10 Bit D/A Converter	25.85	18.75	17.50
569-3724	3751DC	SGT	12 Bit A/D Converter	19.50	15.00	13.75
569-3725	3751DL	SGT	12 Bit A/D Converter	27.50	21.50	19.40
569-3800	3800DC	SGT	8 Bit Parallel Vacuum	21.66	17.50	15.30
569-3801	3800DL	SGT	8 Bit Parallel Vacuum	29.58	24.50	20.90
569-3814	3814DC	MOS/SGT	4½ Digit Volt Meter	16.50	13.20	11.00
552-1538	3815DC	MOS/SGT	Decade Counter	16.50	13.20	11.00
569-3816	3816DC	MOS/SGT	Programmable Divider	10.66	6.39	5.32
551R9500	7400DC	TTL/SSI	Quad 2 Gate	.75	.60	.50
551R9501	7400PC	TTL/SSI	Quad 2 Gate	.55	.44	.35
551-9502	7401DC	TTL/SSI	Quad 2 Gate/Open Coll	.75	.60	.50
551-9503	7401PC	TTL/SSI	Quad 2 Gate/Open Coll	.55	.44	.35
551-9504	7402DC	TTL/SSI	Quad 2 Nor Gate	.75	.60	.50
570R7147	7402PC	TTL/SSI	Quad 2 Nor Gate	.55	.44	.35
551-9506	7403PC	TTL/SSI	Quad 2 Gate/Open Collector	.55	.44	.35
551R9507	7404DC	TTL/SSI	Hex Inverter	.93	.74	.62
551R9508	7404PC	TTL/SSI	Hex Inverter	.70	.56	.43
551-9509	7405DC	TTL/SSI	Hex Inverter/Open Collector	.93	.74	.62
551-9510	7405PC	TTL/SSI	Hex Inverter/Open Collector	.70	.56	.43
551-9512	7406PC	TTL/SSI	30V Hex Inverter/Driver	1.50	1.20	.96
551-9514	7407PC	TTL/SSI	30V Hex Buffer/Driver	1.50	1.20	.96
551-9515	7408DC	TTL/SSI	Quad 2 And Gate	.98	.78	.65
551R9516	7408PC	TTL/SSI	Quad 2 And Gate	.60	.48	.37
551-9519	7410DC	TTL/SSI	Triple 3 Gate	.75	.60	.50
551R9520	7410PC	TTL/SSI	Triple 3 Gate	.55	.44	.35
551-9522	7411PC	TTL/SSI	Triple 3 And Gate	.60	.48	.37
570-7154	7413DC	TTL/SSI	Dual 4 Schmitt Trigger	2.50	2.00	1.65
551-9523	7413PC	TTL/SSI	Dual 4 Schmitt Trigger	2.00	1.60	1.35
551-9525	7416PC	TTL/SSI	15V Hex Inverter/Driver	2.70	2.15	1.80
551-9528	7420DC	TTL/SSI	Dual 4 Gate	.75	.60	.50
551-9529	7420PC	TTL/SSI	Dual 4 Gate	.55	.44	.35
551-9532	7430DC	TTL/SSI	Single 8 Gate	.75	.60	.50
551-9533	7430PC	TTL/SSI	Single 8 Gate	.55	.44	.35
570-7194	7432PC	TTL/SSI	Quad 2 Input NOR Gate	.80	.64	.49
551-9535	7437PC	TTL/SSI	Quad 2 Buffer	1.15	.90	.70
551-9538	7440DC	TTL/SSI	Dual 4 Buffer	.75	.60	.50
551-9540	7440PC	TTL/SSI	Dual 4 Buffer	.55	.44	.35
570-7196	7441DC	TTL/MSI	BCD-DEC Decoder/Driver	2.87	2.43	1.98
570-7197	7441PC	TTL/MSI	BCD-DEC Decoder/Driver	2.21	1.87	1.52
570-7198	7442DC	TTL/MSI	1 of 10 Decoder	2.60	2.18	1.78
570-7199	7442PC	TTL/MSI	1 of 10 Decoder	1.90	1.52	1.19
570-7209	7447PC	TTL/MSI	BCD-7 Seg Decoder	2.80	2.24	1.68
551-9564	7470PC	TTL/SSI	J-K Flip-Flop	1.00	.80	.67
551-9568	7472PC	TTL/SSI	J-K M-S FF (and inputs)	.93	.74	.62
551-9570	7473DC	TTL/SSI	Dual J-K M-S FF	1.95	1.55	1.30
551R9571	7473PC	TTL/SSI	Dual J-K M-S FF	.88	.70	.54
551-9574	7474DC	TTL/SSI	Dual D-Type FF	1.65	1.30	1.10
551R9576	7474PC	TTL/SSI	Dual D-Type FF	.88	.70	.54
570-7212	7475DC	TTL/MSI	Quad Latch	1.60	1.35	1.10
570-7213	7475PC	TTL/MSI	Quad Latch	1.40	1.12	.87
551-9578	7476DC	TTL/SSI	Dual J-K M-S/P & C	2.05	1.62	1.35
551-9580	7476PC	TTL/SSI	Dual J-K M-S/P & C	1.05	.84	.64
551-9584	7486PC	TTL/SSI	Quad Exclusive Or	.90	.72	.56
570-7220	7490DC	TTL/MSI	Decade Counter	1.81	1.53	1.24
570R7221	7490PC	TTL/MSI	Decade Counter	1.60	1.27	.93
570-7224	7492DC	TTL/MSI	Divide by 12 Ctr	1.79	1.52	1.23
570-7225	7492PC	TTL/MSI	Divide by 12 Ctr	1.60	1.27	.94
570-7227	7493PC	TTL/MSI	4 Bit Binary Counter	1.60	1.27	.94
569-2799	7805KC	TTL/MSI	5V To-3 Voltage Reg	4.25	2.85	2.50
569R2800	7805UC	TTL/MSI	5V To-220 Regulator	3.63	2.00	1.75
569-2810	7806UC	TTL/MSI	6V To-220 Regulator	3.63	2.00	1.75
569-2820	7808UC	Linear	8V To-220 Voltage Regulator	3.62	2.00	1.75
569-2829	7812KC	Linear	12V To-3 Voltage Reg	5.00	3.00	2.50
569R2830	7812UC	Linear	12V To-220 Regulator	3.63	2.00	1.75
569R2840	7815UC	Linear	15V To-220 Regulator	3.63	2.00	1.75
569R2850	7824UC	Linear	24V To-220 Regulator	3.63	2.00	1.75
551-9980	9300DC	TTL/MSI	4-Bit Univ Reg	2.84	2.40	1.86

Stock Number	Type		Circuit Function	EACH 1-24	25-99	100-Up
551-9124	9301DC	TTL/MSI	1 of 10 Decoder	3.38	2.85	2.45
551-9128	9307DC	TTL/MSI	BCD To 7 Seg Decoder	5.75	4.10	3.55
570-7407	9307PC	TTL/MSI	BCD To 7 Seg Decoder	3.45	2.93	2.38
551-9016	9310DC	TTL/MSI	BCD-Decade Counter	4.00	3.70	3.20
551-9020	9316DC	TTL/MSI	Up Binary Counter	4.00	3.70	3.20
552-1104	9317BPC	TTL/MSI	7 Segment Decoder/Dfiver	3.45	2.93	2.38
570-7417	9317CPC	TTL/MSI	7 Segment Decoder/Driver	3.45	2.93	2.38
551-9032	9322DC	TTL/MSI	Quad 2-Input Mpxr	2.23	1.56	1.23
551-9158	9324DC	TTL/MSI	5-Bit Comparator	6.50	5.70	4.95
551-9050	9334DC	TTL/MSI	8-Bit Addressable Latch	8.63	5.60	4.85
551-9054	9357APC	TTL/MSI	BCD-To-7 Segment Decoder	3.00	2.40	1.86
551-9058	9357BPC	TTL/MSI	BCD-To-7 Segment Decoder	2.80	2.24	1.68
570R7322	9368DC	TTL/MSI	FND-70 Driver/Latch	3.50	2.65	2.30
552-1102	9370PC	TTL/MSI	7 Segment Decoder/Driver Latch	3.32	2.82	2.29
552-1100	9374PC	TTL/MSI	LED Digit Driver	3.13	2.10	1.78
551-9178	9601DC	TTL/INT	Retriggerable 1 Shot	4.40	4.05	3.50
551-9180	9601PC	TTL/INT	Retriggerable 1 Shot	1.65	1.50	1.30
551-9182	9602DC	TTL/INT	Dual Retriggerable 1 Shot	8.88	6.60	5.75
570-7374	9602PC	TTL/INT	Dual Retriggerable 1 Shot	3.13	2.40	2.00
551-9188	9603PC	TTL/INT	One Shot Multivibrator	1.13	.90	.70
552-1000	10000PC	ECL/MSI	Shift Register	10.50	9.00	7.50
552-1002	10010DC	ECL/MSI	Decade Counter	13.75	11.90	10.10
552-1004	10014DC	ECL/SSI	Active Terminator	1.70	1.14	.98
552-1008	10101PC	ECL/SSI	Quad Or/Nor Gate	1.30	.78	.65
552-1010	10102PC	ECL/SSI	Quad 2 Nor Gate	1.30	.78	.65
552-1012	10103DC	ECL/SSI	Quad 2 Or Gate	1.32	.77	.70
552-1014	10104DC	ECL/SSI	Quad 2 Input NAND	1.62	.96	.86
552-1016	10105PC	ECL/SSI	Triple 2-3-2 Or/Nor Gate	1.25	.78	.65
552-1018	10106PC	ECL/SSI	Triple 4-3-3 Or/Nor Gate	1.25	.78	.65
552-1020	10107PC	ECL/SSI	Triple Exclusive Or/Nor	1.90	1.14	.95
551-7906	10109DC	ECL/SSI	Dual 4-5 Or/Nor Gate	1.63	.96	.86
552-1024	10110PC	ECL/SSI	Dual 3 In/3 Out Or Gate	1.90	1.14	.95
552-1026	10111PC	ECL/SSI	Dual 3 In/3 Out Nor Gate	1.90	1.14	.95
552-1028	10114DC	ECL/SSI	Triple Line Receiver	1.62	.96	.86
551-7912	10115DC	ECL/SSI	Quad Line Receiver	1.63	.96	.86
552-1030	10116PC	ECL/SSI	Triple Diff Line Receiver	1.50	.90	.75
552-1032	10117DC	ECL/SSI	Dual 2W AO	1.62	.96	.86
552-1034	10118DC	ECL/SSI	Dual 2W AO	1.62	.96	.86
552-1036	10119PC	ECL/SSI	4 Wide Or/And	1.60	.96	.80
552-1038	10121DC	ECL/SSI	4 Wide AOI	1.62	.96	.86
552-1040	10124DC	ECL/SSI	Quad TTL to ECL Translator	4.17	2.92	2.64
552-1042	10125DC	ECL/SSI	Quad ECL to TTL Translator	4.17	2.92	2.64
552-1044	10130PC	ECL/SSI	Dual D Latch	3.80	2.28	1.90
552-1046	10131PC	ECL/MSI	Dual D Flip/Flop	5.00	3.00	2.50
552-1048	10132DC	ECL/MSI	Dual Mux Latch	7.57	4.12	4.00
552-1050	10133DC	ECL/MSI	Quad Latch	7.00	4.10	3.65
552-1052	10134PC	ECL/MSI	Dual Mux-Latch	6.00	3.50	3.00
552-1054	10135DC	ECL/MSI	Dual J/K Master Slave F/F	6.35	3.72	3.18
552-1056	10141DC	ECL/MSI	4 Bit Universal Shift Register	12.57	11.23	10.08
552-1058	10145ADC	ECL/MSI	16 x 4 Register File	15.66	12.95	11.00
552-1060	10153PC	ECL/MSI	Quad D-Latch	6.00	3.60	3.00
552-1062	10160DC	ECL/MSI	12 Bit Parity	9.90	6.30	5.70
552-1064	10161PC	ECL/MSI	1-8 Demux/Decode (L)	5.00	2.90	2.50
552-1066	10162PC	ECL/MSI	1-8 Demux/Decode (H)	5.00	2.90	2.50
552-1068	10164DC	ECL/MSI	8-1 Multiplexer	8.27	4.82	4.35
552-1070	10168DC	ECL/MSI	Quad D-Latch	7.00	4.10	3.65
552-1072	10170DC	ECL/MSI	9 + 2 Bit Parity	9.90	6.30	5.70
552-1074	10171DC	ECL/MSI	Dual 1-4 Demux/Decode (L)	6.25	3.69	3.21
552-1076	10172PC	ECL/MSI	Dual 1-4 Demux/Decode (H)	5.00	2.90	2.50
552-1078	10173PC	ECL/MSI	Quad Mux/Latch	7.00	4.35	3.75
552-1080	10174DC	ECL/MSI	Quad 4-1 Mux	8.27	4.82	4.35
552-1082	10175PC	ECL/MSI	Quint D-Latch	9.80	6.15	4.90
552-1084	10179DC	ECL/MSI	Look Ahead Carry	9.90	6.02	5.24
552-1086	10180PC	ECL/MSI	Dual Adder/Subtractor	14.80	12.60	10.95
552-1088	10405DC	ECL/MEM	128 Bit Isoplanar RAM	21.25	16.50	15.00
552-1090	10410DC	ECL/MEM	256 Bit Isoplanar RAM	44.62	25.20	21.00
552-1092	10415DC	ECL/MEM	1024 Bit Isoplanar RAM	52.50	42.00	35.00
552-1094	10415ADC	ECL/MEM	1024 Bit ECL RAM	78.75	63.00	52.50
552-1508	33511PC	MOS/ISO	40 x 9 FIFO Mem 2 MHz	19.50	15.70	13.28
552-1510	33512PC	MOS/ISO	40 x 9 FIFO Mem 1 MHz	13.00	10.50	8.85
552-1524	33561PC	MOS/ISO	Quad 256 Static SR 4 MHz	11.90	10.20	8.90
552-1526	33562PC	MOS/ISO	Quad 256 Static SR 1.5 MHz	11.00	9.30	7.95
552-1528	33571PC	MOS/ISO	Quad 80 Bit Static SR 4 MHz	8.75	6.10	5.10
552-1530	33572PC	MOS/ISO	Quad 80 Bit Static SR 1.5 MHz	8.12	5.60	4.68
569-3401	34001PC	CMOS	Quad 2 Input Nor Gate	.55	.39	.32
569-3402	34002PC	CMOS	Dual 4 Input Nor Gate	.55	.39	.32
569-3411	34011PC	CMOS	Quad 2 Input NAND Gate	.55	.39	.32
569-3412	34012PC	CMOS	Dual 4 Input NAND Gate	.55	.39	.32
569-3413	34013PC	CMOS	Dual Type D Flip-Flop	1.45	1.00	.82
569-3414	34014PC	CMOS	8 Stage Shift Register	2.27	1.60	1.29
569-3415	34015PC	CMOS	Dual 4 Stage Shift Register	2.27	1.60	1.29
569-3416	34016PC	CMOS	Quad Bilateral Switch	1.62	1.14	.92
569-3417	34017PC	CMOS	Decade Sequencer	2.27	1.60	1.29
569-3419	34019PC	CMOS	Quad 2 Input Multiplexer	1.70	1.19	.97
569-3420	34020PC	CMOS	14 Stage Timer	4.15	2.90	2.36
569-3421	34021PC	CMOS	8 Stage Shift Register	2.27	1.60	1.29
569-3423	34023PC	CMOS	Triple 3 Input NAND	.55	.39	.32
569-3424	34024PC	CMOS	2 Stage Binary Counter	2.50	1.76	1.42
569-3425	34025PC	CMOS	Triple 3 Input Nor Gate	.55	.39	.32
569-3427	34027PC	CMOS	Dual JK Flip-Flop	1.65	1.14	.92
569-3428	34028PC	CMOS	BCD/Decimal Decoder	2.50	1.76	1.42
569-3429	34029PC	CMOS	4 Bit Up/Down Counter	3.65	2.57	2.07
569-3430	34030PC	CMOS	Quad Exclusive Or Gate	1.50	1.06	.85
569-3435	34035PC	CMOS	4 Bit Parallel I/O Shift Register	3.50	2.46	1.99
569-3440	34040PC	CMOS	12 Stage Timer	4.15	2.92	2.36
569-3442	34042PC	CMOS	Quad D-Latch	2.27	1.60	1.29
569-3449	34049PC	CMOS	Hex Inverter Buffer	1.50	1.06	.85
569-3450	34050PC	CMOS	Hex Noninverting Buffer	1.50	1.06	.85
569-3451	34051PC	CMOS	8-Input Analog Multiplexer	2.92	2.05	1.66
569-3452	34052PC	CMOS	Differential 4 Input Analog Multiplexer	2.92	2.05	1.66
569-3466	34066PC	CMOS	Quad Bilateral Switch	1.62	1.14	.92
569-3469	34069PC	CMOS	Hex Inverter	.87	.62	.50
569-3470	34070PC	CMOS	Quad Exclusive Or	1.55	1.06	.85
569-3471	34071PC	CMOS	Quad 2 Input Or Gate	.55	.39	.32
569-3477	34077PC	CMOS	Quad Exclusive Nor	1.50	1.06	.85
569-3481	34081PC	CMOS	Quad 2 Input And Gate	.55	.39	.32
569-3485	34085PC	CMOS	Quad 2 Wide 2 Input AOI	1.70	1.19	.97
569-3486	34086PC	CMOS	Exp 4 Wide 2 Input AOI	1.70	1.19	.97
569-3499	34099PC	CMOS	8 Bit Addressable Latch	5.17	3.64	2.94
569-4000	34512PC	CMOS	8 Input Multiplexer	2.37	1.67	1.35
569-4005	34702PC	CMOS	Bit Rate Generator	17.35	14.20	12.00
569-4010	34720PC	CMOS	256 Bit RAM	14.37	10.12	8.17
569-4015	340097PC	CMOS	Hex 3 State Non I Buffer	1.77	1.25	1.00
569-4020	340098PC	CMOS	Hex 3 State Inverter Buffer	1.77	1.25	1.00
569-4025	340160PC	CMOS	4 Bit Decade Counter	3.27	2.30	1.86
569-4030	340161PC	CMOS	4 Bit Binary Counter	3.27	2.30	1.86
569-4035	340162PC	CMOS	4 Bit Decade Counter	3.27	2.30	1.86
569-4040	340163PC	CMOS	4 Bit Binary Counter	3.27	2.30	1.86
569-4045	340174PC	CMOS	Hex D-Flip/Flop	2.75	1.94	1.56
569-4050	340175PC	CMOS	Quad Flip/Flop	3.00	2.11	1.70
569-4055	340192PC	CMOS	4 Bit Up/Down Syn Decade Counter	3.50	2.46	2.00
569-4060	340193PC	CMOS	4 Bit Up/Down Syn Binary Counter	3.50	2.46	2.00
569-4065	340194PC	CMOS	4 Bit Right/Left Shift Register	2.27	1.60	1.29
569-4070	340195PC	CMOS	4 Bit Shift Register	2.27	1.60	1.29
570-7152	74121DC	TTL/INT	One-Shot Multivi-Rator	1.73	1.46	1.19
570R7153	74121PC	TTL/INT	One-Shot Multivi-Rator	1.13	.90	.70
570-7184	74192PC	TTL/MSI	Up/Down Decade Counter	3.75	3.00	2.40
570-7186	74193PC	TTL/MSI	Up/Down Binary Counter	3.75	3.00	2.40
552-1600	93410APC	TTL/MEM	256 Bit Isoplanar RAM	17.85	14.45	12.40
552-1498	93410PC	TTL/MEM	256 Bit Isoplanar RAM	16.80	13.60	11.20
552-1602	93411PC	TTL/MEM	256 Bit Isoplanar RAM	17.85	14.45	12.40
552-1606	93415APC	TTL/RAM	H speed 1024 Isoplanar RAM	54.00	43.20	36.00
552-1604	93415PC	TTL/MEM	1024 Isoplanar RAM	33.00	27.50	22.00
552-1616	93416DC	TTL/MEM	256 x 4 Programmable ROM	27.75	22.20	18.50
552-1610	93421PC	TTL/MEM	256 Bit Isoplanar RAM	17.85	14.40	12.40
552-1614	93425APC	TTL/MEM	1024 Bit TTL RAM	54.00	43.20	36.00
552-1612	93425PC	TTL/MEM	1024 Bit TTL RAM	33.00	27.50	22.00
552-1618	93426DC	TTL/MEM	256 x 4 Programmable ROM	27.75	22.20	18.50
552-1620	93436DC	TTL/MEM	512 x 4 Programmable ROM	31.00	24.50	20.48
552-1622	93446DC	TTL/MEM	512 x 4 Programmable ROM	31.00	24.50	20.48

Integrated Circuits

F10K ECL FEATURES

The F10K ECL family provides higher speeds than Schottky TTL. High speed is achieved by using small, low capacitance device geometries and operating the transistors as current mode switches, typically 2 ns per gate—250 MHz flip-flop toggle rate. This helps avoid saturation. Low power insensitive to power supply variations and transients, permits low power supply cost. Internal 50 K (nominal) input pull down resistors, unused inputs may be left open. Open emitter-follower outputs drive terminated lines. Single V_{EE} power supply —4.7 to —6.2 V and separate V_{CC} pins eliminate noise coupling. Wired-OR capability. Simultaneous outputs, included.



Comparison of ECL and Schottky TTL

10K SERIES ECL	SCHOTTKY TTL
Advantages	Disadvantages
Short delays allow propagation through more logic levels in a clock cycle. Compatibility with even faster families currently in development makes future system upgrading easy.	Component delays are about twice as long as with ECL and will not be improved in the foreseeable future.
Low output impedance easily drives all types of inter-connections including terminated transmission lines.	Outputs are not capable of driving terminated transmission lines without severe fan-out compromises.
High output drive capability and complementary outputs accommodate differential transmission over tested pairs.	
Slow edge rate minimizes reflection problems.	Has the fastest output transitions of any logic family, causing reflection problems even with relatively short interconnection lengths, and causing crosstalk problems.
Complementary outputs on many elements add design flexibility.	
Wired-OR capability simplifies logic design.	
Compensated circuits simplify power supply and temperature regulation.	Generates fast power supply load changes, requires good decoupling.
High input impedance minimizes loading, allows high fan-out.	Input thresholds and output low levels are slightly offset from conventional TTL, causing some loss of noise immunity.
Unfamiliar type of circuitry, logic, nomenclature, and pinouts.	Compatible with popular TTL, same supply voltage, almost identical signal levels, same SSI and MSI logic, nomenclature, pinouts.
Not level-compatible with TTL and CMOS, requires additional interface elements.	
Requires external pull-down resistors on all used outputs.	Outputs require no pull-up (or down) resistors.
Has less absolute noise margin.	Large signal swing and large absolute noise immunity cause less problems with temperature or supply voltage variations and gradients, resistive drops along supply lines, and outside noise.
Higher ground current requires heavier distribution busses.	
Has one less logic pin per package due to double ground.	
Has higher power consumption at low frequencies than equivalent S-TTL circuits.	Has lower system power consumption at moderate speed.

ECL/MSI, SST, MEM INTEGRATED CIRCUITS

Stock No.	Device	Family	Description
552-1000	10000PC	ECL/MSI	Shift Register
552-1002	10010DC	ECL/MSI	Decade Counter
552-1004	10014DC	ECL/SSI	Active Terminator
552-1008	10101PC	ECL/SSI	Quad or/nor gate
552-1010	10102PC	ECL/SSI	Quad 2 or nor gate
552-1012	10103DC	ECL/SSI	Quad 2 or gate
552-1014	10104DC	ECL/SSI	Quad 2 input NAND
552-1016	10105PC	ECL/SSI	Triple 2-3-2 or/nor gate
552-1018	10106PC	ECL/SSI	Triple 4-3-3 or/nor gate
552-1020	10107PC	ECL/SSI	Triple exclusive or/nor
551-7906	10109DC	ECL/SSI	Dual 4-5 or/nor gate
552-1024	10110DC	ECL/SSI	Dual 3 in/3 out or gate
552-1026	10111PC	ECL/SSI	Dual 3 in/3 out nor gate
552-1028	10114DC	ECL/SSI	Triple line receiver
551-7912	10115DC	ECL/SSI	Quad line receiver
552-1030	10116PC	ECL/SSI	Triple Diff line receiver
552-1032	10117DC	ECL/SSI	Dual 2W AOI
552-1034	10118DC	ECL/SSI	Dual 2W AO
552-1036	10119PC	ECL/SSI	4 wide or/and
552-1038	10121DC	ECL/SSI	4 wide AOI
552-1040	10124DC	ECL/SSI	Quad TTL to ECL Translator
552-1042	10125DC	ECL/SSI	Quad ECL to TTL Translator
552-1044	10130PC	ECL/SSI	Dual D Latch
552-1046	10131PC	ECL/MSI	Dual D Flip/Flop
552-1048	10132DC	ECL/MSI	Dual Mux Latch
552-1050	10133DC	ECL/MSI	Quad latch
552-1052	10134PC	ECL/MSI	Dual Mux latch
552-1054	10135DC	ECL/MSI	Dual J/K Master Slave F/F
552-1056	10141DC	ECL/MSI	4 Bit Universal Shift Register
552-1058	10145ADC	ECL/MSI	16 x 4 Register file
552-1060	10153PC	ECL/MSI	Quad D-Latch
552-1062	10160DC	ECL/MSI	12 Bit Parity
552-1064	10161PC	ECL/MSI	1-8 Demux/Decode (L)
552-1066	10162PC	ECL/MSI	1-8 Demux/Decode (H)
552-1068	10164DC	ECL/MSI	8-1 Multiplexer
552-1070	10168DC	ECL/MSI	Quad-D Latch
552-1072	10170DC	ECL/MSI	9+2 Bit Parity
552-1074	10171DC	ECL/MSI	Dual 1-4 Demux/Decode (L)
552-1076	10172PC	ECL/MSI	Dual 1-4 Demux/Decode (H)
552-1078	10173PC	ECL/MSI	Quad Mux/Latch
552-1080	10174DC	ECL/MSI	Dual 4-1 Mux
552-1082	10175PC	ECL/MSI	Quint D-Latch
552-1084	10179DC	ECL/MSI	Look ahead carry
552-1086	10180PC	ECL/MSI	Dual Adder/Subtractor
552-1088	10405DC	ECL/MEM	128 Bit Isoplanar RAM
552-1090	10410DC	ECL/MEM	256 Bit Isoplanar RAM
552-1092	10415DC	ECL/MEM	1024 Bit Isoplanar RAM
552-1094	10415ADC	ECL/MEM	1024 Bit ECL RAM

SEVEN SEGMENT LED DRIVERS

Common Anode LED

Stock No.	Mfr's Type	For LED Type	Size	Color	Remarks
552-1100	9374PC	**Fairchild**			15 m/a constant current sink outputs. Needs no resistors. Has a latch on data inputs. Low power inputs . . . compatible with TTL and most CMOS and MOS circuits. Internal power consumption 175 mW typical.
		FND 507, 508	.5"	Red	
		H.P. 5082 Series			
		7730	.3"	Red	
		7750	.43"	Red	
		7650	.43"	Red	
		7660	.43"	Yel.	
		7670	.43"	Grn.	
552-1102	9370PC	**Litronix**			25 ma sink outputs. Needs 7 current limiting resistors. Has high speed input latch. Hexadecimal decode format, i.e., codes above BCD 9 show AbCdEf. Internal power consumption 350 mW typical.
		DL 707	.3"	Red	
		DL 727	.5"	Red	
		DL 747	.6"	Red	
552-1104	9317BPC	**Monsanto**			Display decoded output shows 1 on left side and a 6 with no top flag for high reliability military applications. Has lamp test feature. Needs 7 current limiting resistors. 9317 B sinks 40 ma. 9317 C sinks 20 ma. Internal power consumption 220 mW.
570-7417	9317CPC	MAN 1, 10A	.27"	Red	
		MAN 51, 52	.3"	Grn.	
		MAN 3610, 3620	.3"	Org.	
		MAN 71, 72	.3"	Red	
		MAN 81, 82	.3"	Yel.	
		MAN 4510	.4"	Grn.	
		4610	.4"	Org.	
551-9054	9357APC	4710	.4"	Red	Needs 7 current limiting resistors. No top flag on displayed 6. Has lamp test feature. Internal power consumption 320 mW.
551-9058	9357BPC	4810	.4"	Yel.	

COMMON CATHODE LED

Stock No.	Mfr's Type	For LED Type	Size	Color	Remarks
570-7322	9368DC	**Fairchild**			Sources 19 mA at 1.7V. Internal resistive current limiting. Contains high speed latch on data inputs. Hexadecimal decode format i.e., codes above BCD 9 show AbCdEf. Two units can be connected in parallel, inputs and outputs to give 38 mA at 1.7V. Internal power consumption 225 mW, (not including 7 X 19 mA display power).
		FND 70	.25"	Red	
		FND 357	.375"	Red	
		FND 500	.5"	Red	
		Litronix			
		DL 722	.5"	Red	
		DL 750	.6"	Red	
		H.P. 5082 Series			
		7740	.3"	Red	
		7760	.43"	Red	
		7653	.43"	Red	
		7663	.43"	Yel.	
		7673	.43"	Grn.	
570-7407	9307PC	**Monsanto**			9307 7 segment decoder was designed for decoding but may be used to source low current of 2 mA @ 1.7V can be increased to 6.6 mA with the addition of seven 500 Ω pull up resistor internal power consumption 165 mW.
		MAN 54	.3"	Grn.	
		MAN 3640	.3"	Org.	
		74	.3"	Red	
		84	.3"	Yel.	
		4540	.4"	Grn.	
		4640	.4"	Org.	
		4740	.4"	Red	
		4840	.4"	Yel.	

SEVEN SEGMENT INCANDESCENT DRIVERS

Stock No.	Mfr's Type	Remarks
552-1100	9374PC	7 Segment Decoder/Driver/Latch. Output current 15mA. Constant Current Sink. Breakdown Voltage 10V.
552-1102	9370PC	7 Segment Decoder/Driver/Latch. Output current 25 mA. Output breakdown Volt. 7V.
552-1104	9317BPC	7 Segment Decoder/Driver. Output current 40 mA. Output breakdown voltage 20V.
570-7417	9317CPC	7 Segment Decoder/Driver. Output current 20 mA. Output breakdown voltage 30V.

SPECIAL INSTRUMENTATION AND COMMUNICATION SYSTEMS

The 11C series of special purpose digital IC's is optimized for instrumentation and communication applications.

Stock No.	Mfr's Type	Function	Application or Features
552-1200	11C01FC	0.7ns OR/NOR Gate	UHF Switch, Amplifier
552-1202	11C05DC	1 GHz÷4 Counter	High Speed counters, DME, Land Mobile Radios, Frequency
552-1204	11C06DC	750 MHz Flip-Flop	Synthesizers UHF, VHF, TV, Radio Communications. High Speed Prescaling.
552-1206	11C24DC	Dual TTL VCM	Phase locked loops for Digital Frequency Control. Stable fixed frequency oscillator (3.0 to 15 MHz).
552-1208	11C44DC	Phase/Freq. Compar.	Phase locked loops for Digital Frequency Control. Accepts TTL waveforms and generates an error voltage proportional to the frequency and/or phase difference of the input frequencies. Used to control VCM's.
552-1210	11C58DC	ECL VCM	Voltage controlled multivibrator, 4 to 1 Dynamic Control Range. Operating frequency range 0 to 155 MHz typical. Used in phase locked loops, automatic frequency control.

TTL/SSI SELECTION GUIDE

Description	Standard tpd=10 ns Pd= 10 mW per Gate
NAND Gates	
Quad 2-Input Positive NAND Gate	7400
Quad 2-Input Positive NAND Gate	7401
Triple 3-Input Positive NAND Gate	7410
Dual 4-Input NAND Schmitt Trigger	7413
Dual 4-Input Positive NAND Gate	7420
8-Input Positive NAND Gate	7430
NOR Gates	
Quad 2-Input Positive NOR Gate	7402
AND Gates	
Quad 2-Input Positive AND Gate	7408
Triple 3-Input Positive AND Gate	7411
Exclusive-OR/OR Gates	
Quad 2-Input Positive OR Gate	7432

Description	Standard tpd=10 ns Pd= 10 mW per Gate
Inverters and Buffers	
Hex Inverter	7404
Hex Inverter with Open-Collector Output	7405
Hex Inverter Buffer/Driver (O.C.)	7406
Hex Buffer/Driver (O.C.)	7407
Hex Inverter Buffer/Driver (O.C.)	7416
Dual 4-Input Positive NAND Buffer	7440
Flip-Flops	
Dual J-K Master Slave Flip-Flop	7473
Dual J-K Master Slave Flip-Flop with Preset and Clear	7476
Dual D Type Edge Triggered Flip-Flop	7474

See Integrated Circuit Directory for Complete Pricing

Linear Integrated Circuits

INTEGRATED CIRCUITS

COMMERCIAL OP AMP SELECTION GUIDE

Stock No.	Mfr's Type	Input Offset Voltage Max (mV)	Input Offset Current Max (nA)	Input Bias Current Max (nA)	Voltage Gain (Volts/V)	Bandwidth Av=1 (MHz)	Supply Min. Typ (V)	Voltage Max. Typ (V)	Compen-sation Comp.	Input Offset Volt Drift Max. (uV/°C)	Common Mode Range (V)	Differential Input Voltage (V)	Supply Current Max. (mA)
569-1540	709HC	7.5	500	1500	15K	1.0	±9	±18	0	10	±8	±5	2.9
569-1580	709DC	7.5	500	1500	15K	1.0	±9	±18	0	10	±8	±5	2.9
569-1840	725HC	2.5	35	125	250K	1.0	±3	±22	4	5	±13.5	±22	3
552-1300	725EHC	0.5	5	75	1000K	1.0	±3	±22	4	2	±13.5	±22	3
569-2060	740HC	100	0.3	2	25K	3.0	±5	±22	0	..	±10	±30	8
569-2145	741DC	6	200	500	20K	1.0	±5	±18	0	..	±12	±30	2.8
569-2100	741HC	6	200	500	20K	1.0	±5	±18	0	..	±12	±30	2.8
569-2160	741TC	6	200	500	20K	1.0	±5	±18	0	..	±12	±30	2.8
552-1400	741PC	6	200	500	20K	1.0	±5	±18	0	..	±12	±30	2.8
552-1402	741EHC	3	30	80	50K	1.0	±5	±22	0	15	±12	±30	3.75
552-1404	741EDC	3	30	80	50K	1.0	±5	±22	0	15	±12	±30	3.75
569-2240	747DC	6	200	500	20K	1.0	±5	±18	0	..	±12	±30	5.6
552-1406	747EHC	....	200	500	20K	1.0	±5	±18	0	..	±12	±30	4.25
569-2270	748DC	6	200	500	20K	1.0	±5	±18	1	..	±12	±30	2.8
569-1321	LM301AD	7.5	50	250	25K	1.0	±3	±18	1	30	±12	±30	3
569-1322	LM301AH	7.5	50	250	25K	1.0	±3	±18	1	30	±12	±30	3
569-1323	LM301AN	7.5	50	250	25K	1.0	±3	±18	1	30	±12	±30	3
569-1328	LM307H	7.5	50	250	25K	1.0	±3	±18	0	30	±15	±30	3
569-1329	LM307N	7.5	50	250	25K	1.0	±3	±18	0	30	±15	±30	3
569-1330	LM308H	7.5	1	7	15K	1.0	±5	±18	1	30	±13.5	±0.5	0.8
551-7914	MC1458CC	6	200	500	20K	1.0	±5	±18	0	..	±12	±30	2.9
551-7916	MC1458CPI	6	200	500	20K	1.0	±5	±18	0	..	±12	±30	2.9

VOLTAGE COMPARATOR

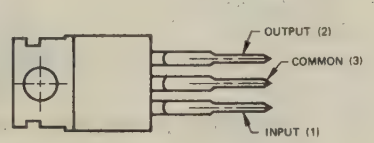
(1) Typical values at 25°C unless otherwise specified. (2) Minimum or maximum value for $0°C \leq T_A \leq 70°C$ unless otherwise specified. (3) $V_- = -7.0$ V. (4) Typical. (5) $T_A = +25°C$.

Stock Number	569-1333	569-1660	569-1710	569-2002	569-2443
		High Speed	Dual	Precision	High Speed Differential
Mfr's Type	LM 311H	710DC	711DC	734DC	760DC
Input Offset Voltage (max. mV) (2)	10	5.0	5.0	7.5	6.0
Temp. coefficient Input Offset Volt. (mV/°C) (4)	6.0	5.0	5.0	3.5	3.0
Input Bias Current (max. mA) (2)	0.3	40	150	0.15	60
Input Offset Current (max. mA) (2)	0.07	7.5	25	0.045	7.5
Supply Voltage (V) (2)	0.5.0 to +15	+12, −60	+12, −60	±5.0 to ±15	±4.5 to +65
Response Time (ns) (1)	200	40	40	200	16
Input Voltage Range (V) (2)	±14	+5.0 (3)	+5.0 (3)	+5.0	+4.0
Output Voltage Swing (V) (2)	N.A.	−0.5 to +3.2	−0.5 to +3.2	0 to +8.0	0 to ±3.0
Voltage Gain (min. V/mV) (5)	200(4)	0.8	0.5	25	5.0 (4)
Power Consumption (max. mW) (5)	205	150	230(5)	145	325
TTL Fanout (1)	5.0 (min.)	1	1	2	2
Diff. Input Volt. Range (V) (2)	±16	±5.0	±5.0	+10	+5.0
Package Availability	TO-99, 9T	TO-99, 91, 6A, 9A	TO-99, 100, 6A, 9A	TO-100, 6A	TO-99, 6A
Military, full temp. Avail.	Yes	Yes	Yes	Yes	Yes

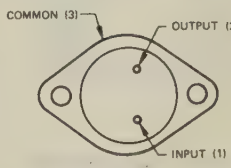
I'm Alec Electron the Allied Man. I do my job as fast as I can. And my job is to help you get all the components you need whenever you need them with the greatest of speed. I'm Alec Electron, your dependable Allied Man. I aim to serve you as best I can.

TYPES 7800 FIXED 4-TERMINAL VOLTAGE REGULATORS

CONNECTION DIAGRAMS
TO-220 PACKAGE
(TOP VIEW)
PACKAGE OUTLINE **UC***



TO-3 PACKAGE
(TOP VIEW)
PACKAGE OUTLINE **KC***



- **Output Current In Excess of 1 Amp**
- **Internal Thermal Overload Protection**
- **Available In The TO-220 and The TO-3 Package**
- **No External Components**

The 7800 Series three-terminal positive regulator is constructed using the epitaxial process. These regulators employ integral current limiting, thermal shutdown and safe-area compensation. Can deliver over 1 A output current if adequate heat sinking is provided. They are intended as fixed-voltage regulators in a wide range of applications including local, on-card regulation for elimination of distribution problems associated with single point regulation. In addition these devices can be used with external components to obtain adjustable output voltages and currents and also as the power pass element in precision regulators. Output voltages of 5, 6, 8, 12, 15, 18, and 24 Volts. Lead Temp. for soldering, TO-3 300°C with 60 sec. time limit, TO-220 230°C with 10 sec. time limit.

Stock No.	Mfr's* Type	Output Voltage +	Output Voltage −	Fixed TO-3 & TO-220 1.5A
569-2799	7805KC	5	5	Yes
569-2800	7805UC	5	5	Yes
569-2810	7806UC	6	6	Yes
569-2820	7808UC	8	8	Yes
569-2829	7812KC	12	12	Yes
569-2830	7812UC	12	12	Yes
569-2840	7815UC	15	15	Yes
569-2850	7824UC	24	24	Yes

ALL BIPOLAR MEMORIES

CONDITIONS: All BiPolar Memories are static and have non-destructive readouts **(NORO).** All BiPolar **RAMS** are volatile. All BiPolar **ROMS** and **PROMS** are non-volatile. All BiPolar **PROMS** are supplied with logic levels "1" high. **NOTES: (1)** Power Dissipation is at Vcc Max. **(2)** Max. limits are over full temperature range 0-75°C. **(3)** Typical values at 25°C. **(4)** Vcc Max. = Vcc type = (.05) Vcc type. **(5)** High UL = 60 uA.

Stock No.	Mfr's Type	Tech	Type	Bit Organization	Outputs	Access Time (ns)				Write Cycle Time (ns)				Power Dissipation [1] (mw)			
						Commercial		Military		Commercial		Military		Commercial		Military	
						Type	Max[2]	Type	Max[2]	Type	Max[2]	Type	Max[2]	Type	Max[2]	Type[3]	Max[2]
552-1498	93410PC	TTL	RAM	256 x 1	OC	45	60	45	70	45	60	45	70	475	735	475	735
552-1600	93410APC			256 x 1	OC	35	40	..	..	35	40	..	..	475	735	...	...
552-1602	93411PC			256 x 1	OC	45	55	45	75	45	55	45	75	475	710	475	750
552-1604	93415PC			1024 x 1	OC	40	70	40	75	40	70	40	75	475	820	475	895
552-1606	93415APC			1024 x 1	OC	30	45	..	..	30	45	..	..	475	820	...	...
552-1608	931415PC			1024 x 1	OC	75	..	..	..	75	..	..	..	185	...	...	...
552-1610	93421PC			256 x 1	3S	35	50	35	60	35	50	35	60	475	110	475	110
552-1612	93425PC			1024 x 1	3S	40	70	40	75	40	70	40	75	475	820	475	895
552-1614	93425APC			1024 x 1	3S	30	45	30	..	30	45	30	..	475	...	576	...
552-1616	93416DC		PROM	256 x 4	OC	45	70	45	80	..	..	..	..	450	685	450	715
552-1618	93426DC			256 x 4	3S	45	70	45	80	..	..	..	..	450	685	450	715
552-1620	93436DC			512 x 4	OC	30	50	30	60	..	..	..	..	500	580	500	580
552-1622	93446DC			512 x 4	3S	30	50	30	60	..	..	..	..	500	580	500	600
552-1088	10405DC	ECL	RAM	128 x 1	..	11	..	..	..	11	..	..	..	475	...	475	...
552-1090	10410DC			246 x 1	..	20	..	..	..	20	..	..	..	500	...	500	...
552-1092	10415DC			1024 x 1	..	35	..	..	..	35	..	..	..	500	...	500	...
552-1094	10415ADC			1024 x 1	..	25	..	..	..	25	..	..	..	500	...	500	...

See Integrated Circuit Directory for Full Pricing Information

INTEGRATED CIRCUITS

MOS Integrated Circuits

MOS/LSI technology is optimally used only when its great diversity is properly exploited. This MOS series offers proven P-channel MOS processes—silicon gate and high-threshold metal gate, and the new N-channel silicon gate process—and the flexibility to blend custom and/or standard MOS designs with bipolar SSI/MSI. The silicon gate process is generally more economical, as it provides higher circuit densities, greater operating speeds and, in many instances, requires fewer off-chip components. The two processes are compatible and have been effectively combined in specific custom applications. The superior noise immunity in high-threshold metal gate circuits can often be a welcome adjunct to silicon gate designs. A broad selection of standard circuits will cover a wide range of applications, from industry standards like the 1103 1K RAM and 3514 4K ROM to new areas like the 3814 Digital Voltmeter Logic and 3262 TV Sync Generator.

STANDARD PRODUCTS

RAM'S (RANDOM ACCESS MEMORIES)

Stock No.	Mfr's Type	Description
552-1500	1103DC	1024 x 1 Dynamic; 300 ns
552-1502	11031DC	1024 x 1 Dynamic; 150 ns

MULTIPLEXERS AND COUNTERS

552-1538	3815DC	5-decade Counter
569-3816	3816DC	÷3 to 261, 145 Programmable Counter

SHIFT REGISTERS

552-1512	3342PC	Quad 64-bit Static
552-1514	3347PC	Quad 80-bit Static
552-1516	3348DC	Hex 32-bit with Buffer Enable
552-1518	3349PC	Hex 32-bit Static
552-1520	2533PC	1024 x 1 bit Static; 1.5 MHz
552-1522	3355PC	1024 x 1 bit Static; 4 MHz
552-1524	33561PC	Quad 256-bit Static; 4 MHz
552-1526	33562PC	Quad 256-bit Static; 1.5 MHz
552-1528	33571PC	Quad 80-bit Static; 4 MHz
552-1530	33572PC	Quad 80-bit Static; 1.5 MHz
569-3304	3325HC	Quad 64-bit Dynamic
569-3305	3326HC	Triple 66-bit Dynamic
569-3306	3326HL	Triple 66-bit Dynamic
569-3307	3329HC	512-bit 2-phase Dynamic
569-3308	3330HC	480-bit 2-phase Dynamic
569-3309	3331HC	500-bit 2-phase Dynamic
569-3319	3383HC	256-bit 2-phase Dynamic

FIFO (FIRST IN - FIRST OUT MEMORY)

Stock No.	Mfr's Type	Description
552-1504	3341APC	64 x 4 bit; 1 MHz
552-1506	3341PC	64 x 4 bit; 700 kHz
552-1508	33511PC	40 x 9 bit; 2 MHz
552-1510	33512PC	40 x 9 bit; 1 MHz

CHARACTER GENERATORS

569-3200	3257ADC	5 x 7 x 64 Out ASCII Font
569-3204	3258DDC	5 x 7 x 64 Out ASCII Font; 100 ns
552-1532	3260CDC	7 x 9 x 64 Out ASCII Font; 100 ns

CONSUMER AND INDUSTRIAL PRODUCTS

552-1534	3262ADC	TV Sync Generator
552-1536	3262BDC	TV Sync Generator with Generator Lock
569-3814	3814DC	4½ digit Voltmeter

OTHER TYPES

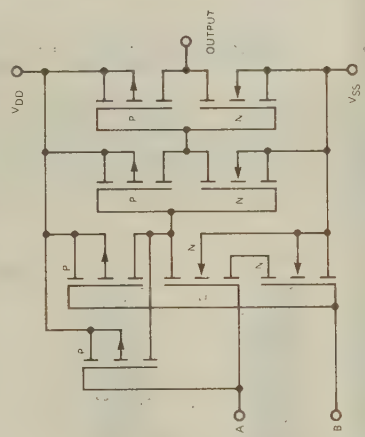
569-3722	3750DC	10-bit D/A Converter
569-3723	3750DL	10-bit D/A Converter
569-3724	3751DC	12-bit A/D Converter
569-3725	3751DL	12-bit A/D Converter
569-3800	3800DC	8-bit Accumulator
569-3801	3800DL	8-bit Accumulator
569-3100	3100DL	Dual 5-input Gate
569-3101	3101DL	Dual J-K Flip-Flop

LOW SPEED SYSTEMS (Clock Rated Less than 5 MHz)

34000 CMOS SERIES

- **Low Power—Quiescently 10 nW/Gate Typ.**
- **Wide Supply Voltage Range—3 to 15 V**
- **High Noise Immunity • Wide Temp. Range**
- **Buffered Outputs Standardize Output Drive, Reduce Variation of Propagation Delay with Load Capacitance**
- **High DC Fan Out—Greater Than 50**

The 34000 Series CMOS family takes the popular 4000 series functions and equips them with characteristics which greatly simplify system design. The advanced isoplanar C process makes possible a superior combination of noise immunity, standardized drive characteristics and relative insensitivity to input capacitance loading. At static conditions, these devices dissipate very low power, typically 10 nW per gate. The low power combined with the wide supply voltage tolerance greatly minimizes power supply costs. Wide operating temperature range: commercial, −40° to +85° C; military, −55° to + 125° C.



COMPARISON OF CMOS vs. TTL FOR LOW SPEED APPLICATIONS

CMOS	Standard or Lower Power Schottky TTL
Advantages	**Disadvantages**
Extremely low static power consumption, very little heat at moderate speed	Relatively high static consumption and heat generation
Very wide range of supply voltages (theoretically 3-15V, practically 5-12V)	Tight power supply voltage requirements (5V ±5% commercial, ±10% military grade)
Ideally suited for battery operation	Not well-suited for battery operation
Low-cost power supply. Less cost, heat, weight, size than any other family	More expensive power supply
High voltage noise immunity, an advantage with inductively coupled noise	Lower voltage noise immunity
Disadvantages	**Advantages**
Some of original CMOS circuits are poorly defined, not systems oriented	Well-designed, systems-oriented MSI
Low speed, delays depend on supply voltage and capacitive loading	Adequate speed, tight tolerances
Poor current noise immunity (capacitively coupled noise)	Low impedance outputs give good immunity against capacitively coupled noise
New functions, logic pinouts	Familiar functions, logic, pinouts
Large parameter variations between different vendors	Standard TTL available from many suppliers; low cost

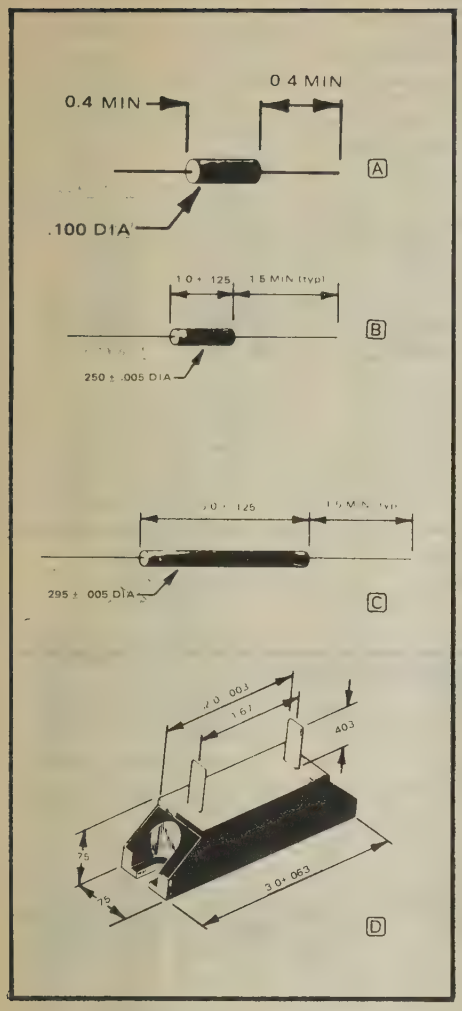
CMOS CROSS-REFERENCE GUIDE

Stock Nos.	Fairchild	RCA Series B	RCA Series A	Motorola	National	Solid State Scientific	Solitron	Harris	Texas Instruments
569-3401	34001PC	....	CD4001A	MC14001A	MM4801A	SCL4001A	CM4001A	HD4001A	TP4001A
569-3402	34002PC	....	CD4002A	MC14002A	MM4602A	SCL4002A	CM4002A	HD4002A	TP4002A
569-3411	34011PC	....	CD4011A	MC14011A	MM4611A	SCL4011A	CM4011A	HD4011A	TP4011A
569-3412	34012PC	....	CD4012A	MC14012A	MM4612A	SCL4012A	CM4012A	HD4012A	TP4012A
569-3413	34013PC	....	CD4013A	MC14013A	MM4613A	SCL4013A	CM4013A	HD4013A	TP4013A
569-3414	34014PC	....	CD4014A	MC14014A	MM4614A	SCL4014A	CM4014A	....	TP4014A
569-3415	34015PC	....	CD4015A	MC14015A	MM4615A	SCL4015A	....	....	TP4015A
569-3416	34016PC	....	CD4016A	MC14016A	MM4616A	SCL4016A	CM4016A	....	TP4016A
569-3417	34017PC	....	CD4017A	MC14017A	MM4617A	SCL4017A	CM4017A	....	TP4017A
569-3419	34019PC	....	CD4019A	....	MM4619A	SCL4019A	CM4019A	HD4019A	TP4019A
569-3420	34020PC	....	CD4020A	MC14020A	MM4620A	SCL4020A	CM4020A	....	TP4020A
569-3421	34021PC	....	CD4021A	MC14021A	MM4621A	SCL4021A	CM4021A	....	TP4021A
569-3423	34023PC	....	CD4023A	MC14023A	MM4623A	SCL4023A	CM4023A	HD4023A	TP4023A
569-3424	34024PC	....	CD4024A	MC14024A	MM4624A	SCL4024A	CM4024A	....	TP4024A
569-3425	34025PC	....	CD4025A	MC14025A	MM4625A	SCL4025A	CM4025A	HD4025A	TP4025A
569-3427	34027PC	....	CD4027A	MC14027A	MM4627A	SCL4027A	....	HD4027A	TP4027A
569-3428	34028PC	CD4028B	....	MC14028A	MM4628A	SCL4028A	....	....	TP4028A
569-3429	34029PC	....	CD4029A	....	MM4629A	SCL4029A	....	....	TP4029A
569-3430	34030PC	....	CD4030A	....	MM4630A	SCL4030A	....	HD4030A	TP4030A
569-3435	34035PC	....	CD4035A	MC14035A	MM4635A	SCL4035A	....	....	TP4035A
569-3440	34040PC	....	CD4040A	MC14040A	MM4640A	SCL4040A	....	....	TP4040A
569-3442	34042PC	....	CD4042A	MC14042A	MM4642A	SCL4042A	....	....	TP4042A
569-3449	34049PC	....	CD4049A	MC14049A	MM4649A	SCL4049A	....	....	TP4049A
569-3450	34050PC	....	CD4050A	MC14050A	MM4650A	SCL4050A	....	....	TP4050A
569-3451	34051PC	....	CD4051A	....	MM4651A	....	....	....	TP4051A

Stock No.	Fairchild	RCA Series B	RCA Series A	Motorola	National	Solid State Scientific	Solitron	Harris	Texas Instruments
569-3452	34052PC	....	CD4052A	....	MM4652A	....	....	....	TP4052A
569-3466	34066PC	....	CD4066A	....	MM4668A	....	....	....	....
569-3469	34069PC	CD4069B	....	....	MM74C04	....	....	....	....
569-3470	34070PC	CD4070B	....	....	....	....	....	....	....
569-3471	34071PC	CD4071B	....	....	....	....	....	....	....
569-3477	34077PC	CD4077B	....	....	....	....	....	HD4811	....
569-3481	34081PC	CD4081B	....	....	....	....	....	....	....
569-3485	34085PC	CD4085B	....	....	....	....	....	....	....
569-3486	34086PC	CD4086B	....	....	....	....	....	....	....
569-3499	34099PC	CD4099B	....	....	....	....	....	....	....
569-4000	34512PC	....	....	MC14512	....	....	....	....	TP4512A
569-4005	34702PC	....	....	....	....	....	....	....	....
569-4010	34720PC	....	CD4061A	....	....	....	....	....	....
569-4015	340097PC	....	....	....	MM80C97	....	....	....	....
569-4020	340098PC	....	....	....	MM80C98	....	....	....	....
569-4025	340160PC	....	....	....	MM74C160	....	....	HD74C160	TP4360
569-4030	340161PC	....	....	....	MM74C161	....	....	HD74C161	TP4361
569-4035	340162PC	....	....	....	MM74C162	....	....	HD74C162	TP4362
569-4040	340163PC	....	....	....	MM74C163	....	....	HD74C163	TP4363
569-4045	340174PC	....	....	....	MM74C174	....	....	HD74C174	....
569-4050	340175PC	....	....	....	MM74C175	....	....	....	....
569-4055	340192PC	....	....	....	MM74C192	....	....	HD74C192	....
569-4060	340193PC	....	....	....	MM74C193	....	....	HD74C193	....
569-4065	340194PC	....	....	....	....	....	....	....	....
569-4070	340195PC	....	....	....	MM74C195	....	....	HD74C195	....

See Integrated Circuit Directory for Complete Price Information

Rectifiers



HIGH VOLTAGE RECTIFIERS

All ratings are obtained without the use of heat sinks or special mounting techniques. Will withstand 500G shock, 100 Hz vibration with peak acceleration of 10G.

A VB SERIES

DC Reverse Current: .05 μA at PRV at 25°C, 5.0 μA at PRV at 100°C; Peak Surge Current: 3 amps maximum, 1 cycle at 60 Hz (non-rep.). Ambient Operating Temperature Range: —55°C to +150°C.

Stock No.	Type No.	PRV (V)	Io (mA)	Vf (V)
976-1412	VB50	5000	50	10

B VG SERIES

DC Reverse Current: 1 μA at PRV at 25°C, 40 μA at PRV at 100°C. Peak Surge Current: 3 amps maximum, 1 cycle at 60 Hz (non-rep.). Ambient Operating Temperature: —55°C to +150°C.

Stock No.	Type No.	PRV (V)	Io (mA)	Vf (V)
976-3310	VG10	10,000	25	20

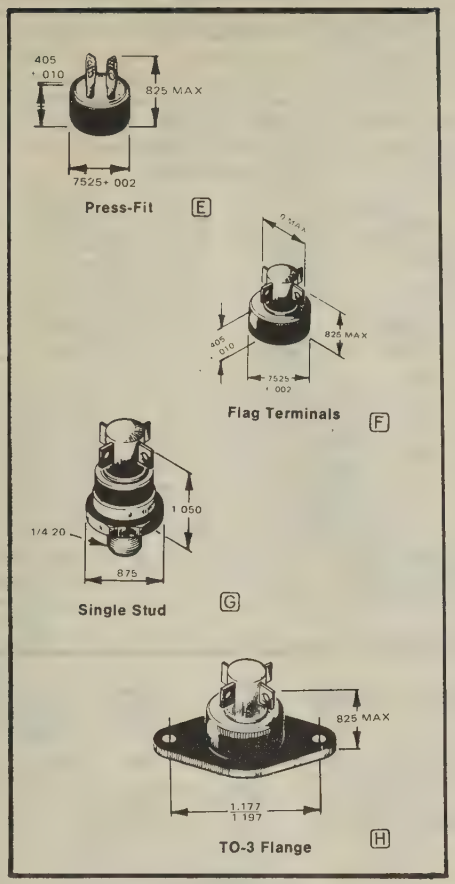
C VF SERIES

Stock No.	Type No.	PRV (V)	Io (mA)	Vf (V)
976-2720	VF25-40	40,000	25	50

D VC SERIES

High voltage with low leakage current offered in epoxy encapsulated packages. Units have ¼" tin plated brass terminals. DC Reverse Current: 1 μA at PRV at 25°C, 1 mA at PRV at 125°C. Peak Surge Current: 50 amps maximum, 1 cycle at 60 Hz (non-rep.). Ambient Operating Temperature: —50°C to +125°C. Insulation Strength: terminal to heat sink, 10,000 volts minimum.

Stock No.	Type No.	PRV (V)	Io (A)	Vf (V)
976-1540	VC60	6000	1.5	12
976-1560	VC80	8000	1	14



10 AND 25 AMP INTEGRATED BRIDGE RECTIFIERS

Single phase 10 amp and 25 amp integrated bridge rectifiers feature silicon controlled avalanche characteristics. Controlled avalanche characteristics eliminate the need to buy more expensive, overrated devices to provide adequate protection against voltage transients. Electrically isolated welded case offers minimum size and maximum mounting ease.

10 AMP CONTROLLED AVALANCHE INTEGRATED BRIDGE RECTIFIERS

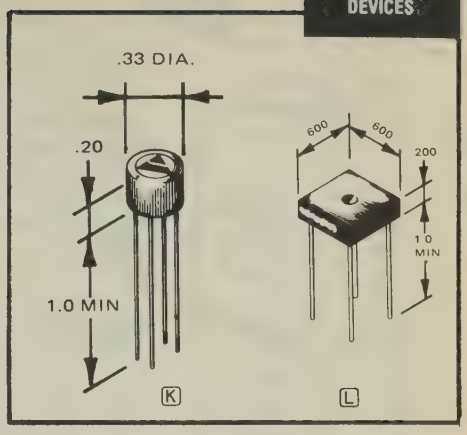
600 watts max. power dissipation in the V_{BR} region for 100 μsec, 4 watts/leg continuous. Average DC Forward Current: 10 A at 100°C case temperature. Peak Surge Current: 100 A, 1 cycle at 60 Hz (non-rep.). Max. Reverse Current: 0.2 mA at Tc = 160°C. Insulation Strength: 2000 VDC minimum, case-to-circuit. Operating/Storage Temperature: —65° to +160°C.

Stock No.	Type No.	Fig.	Avalanche Volts Min.	Avalanche Volts Max.	Max. Vr (RMS)	Vrm (wkg)	Max. Vfm V/leg
976-R0200	1N4436	E	250	500	140	200	1.2
976-R0220	1N4436/F/T	F	250	500	140	200	1.2
976-R0210	1N4436/F/S	G	250	500	140	200	1.2
976-0230	1N4437	E	450	700	280	400	1.2
976-0250	1N4437/F/T	F	450	700	280	400	1.2
976-R0240	1N4437/F/S	G	450	700	280	400	1.2
976-0280	1N4438/F/T	F	650	900	400	600	1.2
976-0270	1N4438/F/S	G	650	900	400	600	1.2

25 AMP CONTROLLED AVALANCHE

Provides 1500 watts maximum power dissipation in the V_{BR} region for 100 μsec, 4 watts/leg continuous. Average DC Forward Current: 25 amps at 100°C case temperature. Peak Surge Current: 250 amps, 1 cycle at 60 Hz (non-rep.). Maximum Reverse Current: 5 mA at Tc = 180°C. Insulation Strength: case-to-circuit, 2000 VDC minimum. Operating/Storage Temperature: —65°C to +180°C.

Stock No.	Type No.	Fig.	Avalanche Volts Min.	Avalanche Volts Max.	Max. Vr (RMS)	Vrm (wkg)	Vfm V/leg
976-3160	VT200	F	250	700	140	200	1.5
976-R3162	VT200/T	H	250	700	140	200	1.5
976-R3161	VT200/S	G	250	700	140	200	1.5
976-3170	VT400	F	450	900	280	400	1.5
976-3172	VT400/T	H	450	900	280	400	1.5
976-R3171	VT400/S	G	450	900	280	400	1.5
976-3180	VT600	F	650	1100	400	600	1.5
976-R3182	VT600/T	H	650	1100	400	600	1.5
976-R3181	VT600/S	G	650	1100	400	600	1.5



EPOXY BRIDGE RECTIFIERS

Minimum size, low-cost epoxy bridge rectifiers for general purpose, low current applications such as power tools, permanent magnet motors, DC supplies and battery chargers. Available in controlled avalanche, non-controlled avalanche. Reverse Current: 5 μA at Tc = 40°C. Operating/Storage Temperature: —50° to +150°C.

K 1 AMP EPOXY BRIDGE RECTIFIERS

W110, VE08, VE18, VE28, VE48, and VE68 are non-controlled avalanche types. VE27, VE47, and VE67 are controlled avalanche with 200 W max. power dissip. in V_{BR} region for 100 μsec, 1 W continuous. Peak Surge Current: 4 A max., 1 sec at 60 Hz; 25 A max., 1 cycle (non-rep.).

Stock No.	Type No.	Avalanche Volts Min.	Avalanche Volts Max.	Max. Vr (RMS)	Vrm (wkg)	Max. Vfm V/leg
976-3200	W110	...	...	17	25	1.2
976-R3201	VE08/WILL	...	...	35	50	1.2
976-R2010	VE18	...	...	70	100	1.2
976-2020	VE28	...	...	140	200	1.2
976-2050	VE48	...	...	280	400	1.2
976-2090	VE68	...	...	420	600	1.2
976-2019	VE27	250	700	140	200	1.2
976-2042	VE47	450	900	280	400	1.2
976-2074	VE67	650	1100	420	600	1.2

6 AMP EPOXY BRIDGE RECTIFIER

VH048, VH148, VH248, VH448, VH648 are non-controlled avalanche types. VH247, VH447, VH647 are controlled avalanche types with 400 watts max. power dissip. in the V_{BR} region for 100μsec, 2 watts cont. Peak Surge Current: 25 A max., 1 sec at 60 Hz; 100 A amps max., 1 cycle at 60 Hz (non-rep.).

Stock No.	Type No.	Fig.	Avalanche Volts Min.	Avalanche Volts Max.	Max. Vr (RMS)	Vrm (wkg)	Max. Vfm V/leg
976-3700	VH048	L	...	...	35	50	1.2
976-R2850	VH148	L	...	...	70	100	1.2
976-R2853	VH248	L	...	...	140	200	1.2
976-2856	VH448	L	...	...	280	400	1.2
976-2860	VH648	L	...	...	420	600	1.2
976-R2852	VH247•	L	250	700	140	200	1.2
976-R2854	VH447	L	450	900	280	400	1.2
976-R2858	VH647	L	650	1100	420	600	1.2
976-3725	VH148/TT	...	...	...	70	100	1.2

2 AMP EPOXY BRIDGE RECTIFIERS

VS048, VS148, VS248, VS448, VS648 are non-controlled avalanche types. VS247, VS447, VS647 are controlled avalance, types with 300 W max. power dissip. in V_{BR} region for 100 μsec, 1 W cont. VS148X fast recovery with 200 nsec max. t_{rr} Peak Surge: 8 A max., 1 sec at 60 Hz; 50 A max., 1 cycle (non-rep.); fast recovery type, 6 A and 35 A respectively.

Stock No.	Type No.	Fig.	Avalanche Volts Min.	Avalanche Volts Max.	Max. Vr (RMS)	Vrm (wkg)	Max. Vfm V/leg
976-3835	VS048	L	...	...	35	50	1.2
976-0310	VS148	L	...	...	70	100	1.2
976-R3131	VS248	L	...	...	140	200	1.2
976-R3141	VS448	L	...	...	280	400	1.2
976-3152	VS648	L	...	...	420	600	1.2
976-R3130	VS247	L	250	700	140	200	1.2
976-R3140	VS447	L	450	900	280	400	1.2
976-3148	VS647	L	650	1100	420	600	1.2
976-3114	VS148X	L	...	...	70	100	1.5

L 10-AMP EPOXY BRIDGE RECTIFIERS

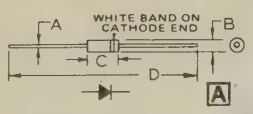
VJ448, non-controlled avalanche type. 27 A max., 1 sec. at 60 Hz; 75 A max., 1½ cycle at 60 Hz (non-rep.).

Stock No.	Type No.	Max. Vr (RMS)	Vrm (wkg)	Max. Vfm V/leg
976-2905	VJ448	280	400	1.2

Barrier and Bridge Rectifiers

NEW!

SCHOTTKY BARRIER RECTIFIERS



These tough, precision-made barrier rectifiers have very low V_f and very fast switching speed. They are used mainly in low voltage power supplies for computers. Other uses include free wheeling diodes, flyback diodes and polarity protection in high speed switching circuits. Available in 1 amp, 3 amp, and 5 amp sizes in plastic axial lead packages and 15 amp size in a DO-4 stud package. Voltage ratings of 20V PIV and 30V PIV are available.

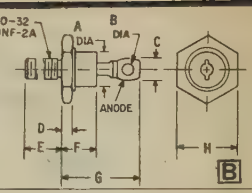
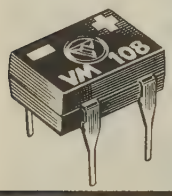


	FIG. A		FIG. A		FIG. A		FIG. B	
LTR	Inches	Millimeters	Inches	Millimeters	Inches	Millimeters	Inches	Millimeters
A	.030-.034 Dia.	,76-,86 Dia.	.048-.052 Dia.	1,22-1,32 Dia.	.048-.052 Dia.	1,22-1,32 Dia.	.250 max.	6,35 max.
B	.10-.107 Dia.	2,54-2,72 Dia.	.20 Dia.	5,08 Dia.	.20 Dia.	5,08 Dia.	.075-.175	1,91-4,45
C	.185-.205	4,70-5,21	.38	9.65	.38	9,65	.422-.453	10.72-11,51
D	2.40	60,96	2.75	69,85	2.75	69,85	.800 max.	20 32 max.
E							.424-.437	10,77-11,10
Stock No.	976-0400	976-0405	976-0410	976-0415	976-0420	976-0425	976-0430	976-0435
Mfrs' Type	VSK 120	VSK 130	VSK 320	VSK 330	VSK 520	VSK 530	VSK 1520	VSK 1530
V_{RM} V_{RWM} V_{RRM}	20 V	30 V	20 V	30 V	20 V	30 V	20 V	30 V
$V_{R(RMS)}$	14 V	21 V	14 V	21 V	14 V	21 V	14 V	21 V
I_O	1.0 A		3.0 A		5.0 A		15.0 A	
T_A	85°C	80°C	80°C	75°C	65°C	60°C	95°C	90°C
I_{FSM}	100 A		250 A		500 A		500 A	
I_{FSM}	40 A		150 A		250 A		300 A	
T_J	−65 to +125°C		−65 to +125°C		−65 to +125°C		−65 to +125°C	
T_{STG}	−65 to +150°C		−65 to +150°C		−65 to +150°C		−65 to +150°C	
V_F	I_F=0.1 Amp .320	.330	I_F=1.0 Amp .370	.380	I_F=3.0 Amps .350		I_F= 8.0 Amps .450	
	I_F=1.0 Amp .450 V	.550 V	I_F=3.0 Amps .475 V	.500 V	I_F=5.0 Amps .380 V		I_F=15.0 Amps .550 V	
	I_F=3.0 Amps .750	.875	I_F=10.0 Amps .850	.900	I_F=.520 Amp		I_F=45.0 Amps 1.0	
I_R @ T_L = 25°C	1.0 ma		3.0 ma		10 ma		10 ma	
I_R @ T_L =100°C	1.00		30.0		75		75	

1 AMP DUAL-IN-LINE BRIDGE



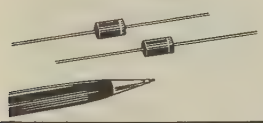
50V, 100V, 200V, 400V, 600V, 800V, and 1000V V_{RRM} ratings. 25 amps peak one half cycle surge current. Standard .10"-2.54mm DIP lead spacing. Two DIB's will fit into standard 14 pin DIP socket. Moisture resistant epoxy case.

MAXIMUM RATINGS

Stock No.	976-0450	976-0455	976-0460	976-0465	976-0470	976-0475	976-0480
Mfr's Type	VM08	VM18	VM28	VM48	VM68	VM88	VM108
V_{RM} V_{RWM} V_{RRM}	50V	100V	200V	400V	600V	800V	1000V
$V_{R(RMS)}$	35V	70V	140V	280V	420V	560V	700V
I_{FSM}				25A			
I_{FRM}				11A			
I_O				1A			
T_J,T_{STG}				−50 to +150°C			

3 AMP DIFFUSED SILICON EPOXY RECTIFIERS WITH 200 AMP PEAK SURGE RATING

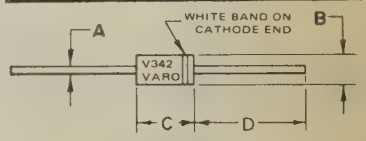
Non-controlled avalanche types with 50V, 100V, 200V, 400V, 600V, 800V, and 1000V V_{RRM} ratings. Minimum size, low cost epoxy encapsulation.



NON-CONTROLLED AVALANCHE

Stock No.	Mfr's Type	V_{RRM}	$V_{R(RMS)}$	I_{FSM}	I_O	T_J, T_{STG}	V_{FM}	I_{RM}
976-0500	V350	50	35	200A	3A	−50 to +150°C	1.1V	0.1 ma at T_J=150°C
976-0505	V351	100	70					
976-0510	V352	200	140					
976-0515	V354	400	280					
976-0520	V356	600	420					
976-0525	V358	800	560					
976-0530	V3510	1000	700					

LTR	INCHES	LTR	INCHES
A	.048 - .052 Dia.	D	1.137 - 1.237
B	.20		
C	.38		



30 AMP EPOXY BRIDGE RECTIFIERS

Externally exposed copper mounting pad for low thermal resistance. 1500 volts minimum circuit-to-case insulation. 30 amps DC forward current at Tc = 80°C.300 amps peak one half cycle surge current.

NON-CONTROLLED AVALANCHE

Stock No.	976-0550	976-0555	976-0560	976-0565	976-0570	976-0575	976-0580
Mfr's Type	VK048	VK148	VK248	VK448	VK648	VK848	VK1048
V_R V_{RWM} V_{RRM}	50V	100	200	400	600	800	1000
$V_{R(RMS)}$	35V	70	140	280	420	560	700
I_{FMS}				300A			
I_{FRM}				75A			
I_O				30A			
T_J, T_{STG}				−50 to +175°C			

CROSS REFERENCE 3 AMP AXIAL LEAD RECTIFIERS

JEDEC	Atlantic Semi-Conductor	Semi-conductor	Edi	Sarkes Tarzian	Scientific Components	General Instrument	Varo Semi-Conductor Inc.
IN4139 IN5400	AE3A	S3A05	HAB5			P300A	V350
IN4140 IN5401	AE3B	S3A1	HAB10		HR100	P300B	V351
IN4141 IN5402	AE3C	S3A2	HAB20	3BF2	HR200	P300D	V352
IN4142 IN5404	AE3D	S3A4	HAB40	3BF4	HR400	P300F P300G	V354
IN4143 IN5406	AE3E	S3A6	HAB60	3BF6	HR600	P300H P300J	V356
IN4144 IN5407	AE3F	S3A8	HAB80		HR800	P300K	V358
IN4145 IN5408	AE3G	S3A10	HAB100	3BF10		P300M	V3510

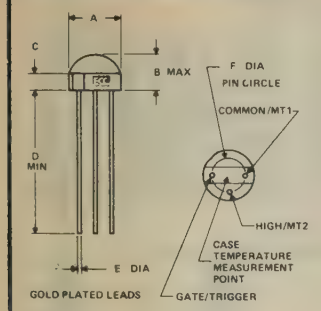
CROSS REFERENCE AND 30 AMP EBR

25 Amp 55°C	27 Amp 55°C	25 Amp 75°C	25 Amp 55°C	25 Amp 55°C	25 Amp 55°C	30 Amp 75°C	25 Amp 50°C	25 Amp 50°C	25 Amp 50°C	25 Amp/60°C "EMF" 32 Amp/55°C "HEMF"	30 Amp 80°C
KBH25005	MDA990-1	J775-0	SCBA05		PB05	B10Z	250JB05P	MB12A25V05	25AF050		VK048
KBH2502	MDA990-2	J775-1	SCBA1	679-1	PB10	B10A	250JB1P	MB12A25V10	25AF100	EMF1B1 HEMF1B1	VK148
KBH2502	MDA990-3	J775-2	SCBA2	679-2	PB20	B10B	250JB2P	MB12A25V20	25AF200	EMF2B1 HEMF2B1	VK248
KBH2504	MDA990-5	J775-4	SCBA4	679-4	PB40	B10D	250JB4P	MB12A25V40	25AF400	EMF4B1 HEMF4B1	VK448
KBH2506	MDA990-6	J775-6	SCBA6	679-6	PB60	B10F	250JB6P	MB12A25V60	25AF600	EMF6B1 HEMF6B1	VK648
KBH2508		J775-8		679-8	PB80	B10H	250JB8P	MB12A25V80	25AF800	EMF8B1 HEMF8B1	VK848
KBH2510		J775-10			PB100	B10K		MB12A25W10	25AF1000	EMF10B1 HEMF10B1	VK1048

See Semiconductor Directory for Complete Price Information

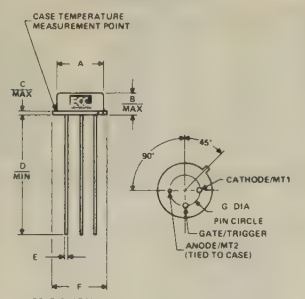
Triacs, Diacs, SCR's

PLASTIC TO-5 "P" PACKAGE



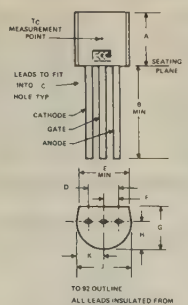
DIM.	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
A	.300	.330	7.62	8.38
B		.210		5.33
C	.100	.120	2.54	3.05
D	.825		20.96	
E	.016	.024	.41	.61
F	.195	.205	4.95	5.21

"M" PACKAGE TO-5 METAL CAN



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.320	.330	8.13	8.38
B		.190		4.83
C		.050		1.27
D	.500		25.90	
E	.014	.022	.36	.56
F	.350	.370	8.89	9.40
G	.195	.205	4.95	5.21

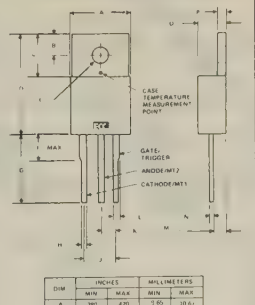
TO-92 "E" PACKAGE



ALL LEADS INSULATED FROM CASE. CASE IS ELECTRICALLY NONCONDUCTIVE

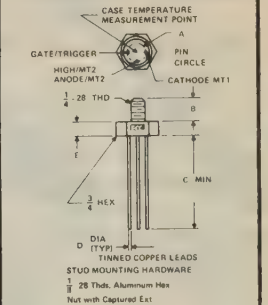
DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.170	.210	4.32	5.33
B	.500		12.70	
C	.016	.019	.41	.48
D	.095	.105	2.41	2.67
E	.125		3.43	
F	.045	.055	1.14	1.40
G	.125	.165	3.18	4.19
H	.080	.105	2.03	2.67
J	.175	.205	4.45	5.21
K	.080	.105	2.03	2.67

THERMOTAB "L" PACKAGE



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.380	.420	9.65	10.67
B	.100	.200	2.54	5.08
C	.230	.270	5.84	6.86
D	.500	.625	12.70	15.88
E	.139	.161	3.53	4.22
F		.250		6.35
G	.500	.562	12.70	14.27
H	.035	.045	.51	1.14
J	.190	.210	4.83	5.33
K	.090	.110	2.28	2.79
L	.045	.070	1.14	1.78
M	.080	.115	2.03	2.92
N	.017	.045	.30	1.14
O	.140	.190	3.56	4.83
P	.020	.055	.51	1.40

¾" HEX STUD "V" PACKAGE



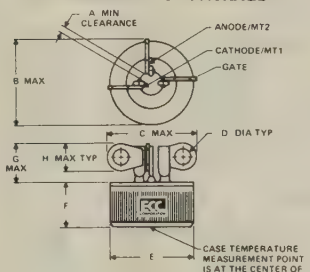
STUD MOUNTING HARDWARE
1/2-28 Thds. Aluminum Hex
Nut with Captured Ext Tooth Lockwasher
Cadmium Plated, 0.24 inch / 6.10 mm Max. Thickness
MAXIMUM STUD TORQUE is 20 inch pounds

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.398	.408	10.11	10.36
B	.400	.500	10.16	12.70
C	1.65		41.91	
D	.049	.053	1.24	1.35
E	.330	.350	8.38	8.89

TRIACS

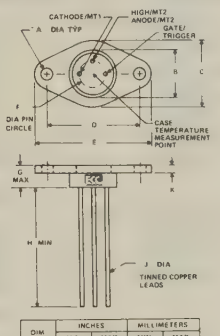
The triac semiconductor is a fullwave or bidirectional gate controlled thyristor. It offers, on an optional basis, its own built-in triggering diode (diac) which reduces component and circuit assembly costs while increasing circuit reliability. The triac may be gate triggered from a blocking to conduction state for either polarity of applied voltage, and is designed for AC switching and phase control applications. The triggering signal normally is applied between gate and common side. Either positive or negative gate signals referred to common side may be used; however, the triggering sensitivity varies as indicated by the gate characteristics. Triacs are glass-passivated for long life and high circuit reliability.

¾" PRESS-FIT "C" PACKAGE



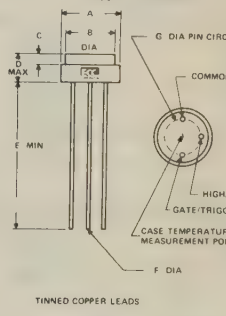
DIM	INCHES		MILLIMETERS	
	MIN	MAX.	MIN	MAX
A	.050		1.27	
B		.840		21.34
C		.850		21.59
D	.140	.160	3.56	4.06
E	.750	.760	19.05	19.30
F	.380	.430	9.65	10.92
G		.480		12.19
H		.260		6.60

¾" SWEDGE TO-3 "Z" PACKAGE



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.147	.161	3.73	4.09
B	.740	.760	18.80	19.30
C	.980	1.10	24.89	27.94
D	1.182	1.192	30.02	30.28
E	1.520	1.560	38.61	39.67
F	.398	.408	10.11	10.36
G		.350		8.89
H	1.65		41.91	
J	.049	.063	1.24	1.35
K	.080	.100	2.03	2.54

⅝" SWEDGE



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.610	.640	15.49	16.26
B	.583	.593	14.81	15.06
C	.084	.090	2.13	2.29
D		.300		7.62
E	1.65		41.91	
F	.039	.041	.99	1.04
G	.297	.307	7.54	7.80

Logic Triacs (Sensitive Gate). Logic triacs are bilateral thyristor semiconductors with sensitive gate characteristics in all quadrants. Interface directly with bipolar or MOS integrated circuits without the need for buffers, etc. to boost or amplify output signal. Available in metal can TO-5, TO-92, THERMOTAB (isolated). Glass passivated junctions for long-term reliability and stability.

Power Thyristor SCR's. Halfwave unidirectional gate controlled rectifiers (SCR thyristors). Available with current ratings from 0.8 to 35 amps and from 30 to 600 volts, with gate sensitivities from 1 to 30 mA. If gate currents in 50, 200 and 500 μA ranges are needed, they feature glass-passivated junctions for reliability.

BILATERAL TRIGGER DIAC

Peak pulse current, 1.5 amp for 10 μsec duration. Dissipation (DO-7 pkg.): 250 mW at T_A = −40° to +25° C. Operating (junction) temperature: −40° to +110° C. Max. trigger firing cap.: 0.15 μF. Derates 3 mW per degree above +25° C.

Stock No.	Type No.	Vbo (V) Min.	Vbo (V) Max.	Vbb (V) @ 6 mA Typ.	Vbb (V) @ 6 mA Min.	Max. Ibo (μA)	△ Vbo (Max. V)
779-8061	GT-32	27	37	4	3	50	3
779-3835	GT-35	30	40	4	3	50	3
779-3840	GT-40	38	48	7	5	50	3
779-3850	GT-50	46	58	10	8	50	4
779-3860	GT-60	56	70	15	10	50	4
Integral Bilateral Trigger		35	45	5	3	50	3

0.8 AMP TO-92 SENSITIVE GATE SCR (ISOLATED)

Stock No.	JEDEC Type No.	Stock No.	ECG Type No.	Max. Amps I_T (rms)	Max. Amps I_T (AV)	Peak (V) V_{DRM} & V_{RRM}	Max. Igt (μA)
779-0350	2N5060	779-0360	EC103Y	0.8	0.5	30	200
779-0370	2N5062	779-0380	EC103A	0.8	0.5	100	200
779-0390	2N5064	779-0400	EC103B	0.8	0.5	200	200
.....	.....	779-0410	EC103D	0.8	0.5	400	200

3 AMP THERMOTAB SENSITIVE GATE SCR (ISOLATED)

Stock No.	Type No.	Max. Amps $I_{T(RMS)}$	Max. Amps $I_{T(AV)}$	V_{DRM} & V_{RRM} (V)	Max. Igt (μA)
779-8375	S2003LS1	3	1.9	200	50

8 AMP THERMOTAB SENSITIVE GATE SCR

Stock No.	Type No.	$I_{T(RMS)}$	$I_{T(AV)}$	V_{DRM} & V_{RRM} (V)	Max. Igt (mA)
779-8484	S4008LS2	8	5.1	400	200

15 AMP THERMOTAB POWER GATE SCR (ISOLATED)

Stock No.	Type No.	Max. Amps $I_{T(RMS)}$	Max. Amps $I_{T(AV)}$	Min. V_{DRM} & V_{RRM} (V)	Igt (mA) Min.	Igt (mA) Max.
779-8625	S2015L	15	9.5	200	1	20

Sensitive Gate SCR's. Halfwave unidirectional gate controlled rectifier (SCR thyristor) with current ratings up to 10 amps, 30 to 600 volts; with gate sensitivities from 50 to 500 μA. Sensitive SCR's are PNPN gate triggered bi-stable switching devices and feature high gate sensitivity and low holding currents for low level switching from 12 mA to 10 amps, depending on device rating. Glass-passivated device junctions for long-term device reliability and parameter stability. Available in a wide selection of current, voltage and gate characteristics; and in various packages.

1.6 AMP METAL CAN TO-5 LOGIC TRIAC (NON-ISOLATED)

Stock No.	Type No.	Max. $I_{T(RMS)}$ (A)	Min. V_{DROM} (V)	Max. Igt mA Quadrants I	II	III	IV
779-6010	L2001M3	1.6	200	3	3	3	3
779-5305	L2001M5	1.6	200	5	5	5	5
779-5309	L2001M9	1.6	200	25	25	25	25
779-4013	L4001M3	1.6	400	3	3	3	3
779-4015	L4001M5	1.6	400	5	5	5	5
779-4019	L4001M9	1.6	400	25	25	25	25

1.6 AMP THERMOTAB LOGIC TRIAC (ISOLATED)

Stock No.	Type No.	Max. $I_{T(RMS)}$ (A)	Min. V_{DROM} (V)	Max. Igt mA Quadrants I	II	III	IV
779-0213	L2001L3	1.6	200	3	3	3	3
779-0215	L2001L5	1.6	200	5	5	5	5
779-0219	L2001L9	1.6	200	25	25	25	25
779-0413	L4001L3	1.6	400	3	3	3	3
779-0415	L4001L5	1.6	400	5	5	5	5
779-0419	L4001L9	1.6	400	25	25	25	25

25 AMP ¾" SWEDGE, TO-3 TRIAC AND HEX STUD

Maximum $I_{T(RMS)}$ = 25 amps. *Diac Igt trigger.

Swedge Stock No.	Swedge Type No.	TO-3 Stock No.	TO-3 Type No.	Hex Stud Stock No.	Hex Stud Type No.	Min. V_{DROM} (V)	Max. Igt (mA)
779-0100	Q2025Y	779-0110	Q2025Z	779-0120	Q2025V	200	50
779-0130	Q2025YT	779-0140	Q2025ZT	779-0150	Q2025VT	200	*
779-0150	Q4025YT	779-0170	Q4025ZT	779-0180	Q4025VT	400	*
779-0190	Q4025Y	779-0200	Q4025Z	779-0210	Q4025V	400	50
779-0280	Q6025Y	779-0290	Q6025Z	779-0300	Q6025V	600	50
779-0310	Q6025YT	779-0320	Q6025ZT	779-0330	Q6025VT	600	*

40 AMP ¾" PRESS-FIT TRIAC

Stock No.	Type No.	Max. Amps $I_{T(RMS)}$	Min. (V) V_{DROM}	Max. Igt (mA)
779-8288	Q4040	40	400	100
779-4488	Q2040C	40	200	100
779-4472	Q4040C	40	400	100

0.8 AMP TO-92 LOW CURRENT LOGIC & STANDARD TRIAC

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-2003	L200E3	0.8	200	3
779-2005	L200E5	0.8	200	5
779-4003	L400E3	0.8	400	3
779-4005	L400E5	0.8	400	5

1.6 AMP THERMOTAB TRIAC (ISOLATED)

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-6036	Q2001L3	1.6	200	10

3 AMP THERMOTAB TRIAC (ISOLATED)

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-8063	Q4003L3	3	400	10

6 AMP THERMOTAB TRIAC (ISOLATED)

*Diac Igt trigger.

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-5140	Q2006L4	6	200	25
779-5142	Q4006L4	6	400	25
779-5141	Q2006LT*	6	200	25
779-5144	Q4006LT*	6	400	50

8 AMP THERMOTAB TRIAC (ISOLATED)

*Diac Igt trigger.

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-6180	Q2008L4	8	200	50
779-6182	Q4008L4	8	400	50
779-6183	Q4008LT*	8	400	50

10 AMP THERMOTAB TRIAC (ISOLATED)

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-6190	Q2010L4	10	200	25
779-6192	Q4010L4	10	400	25

10A ⅜" SWEDGE TRIAC (ISOLATED)

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-6200	Q2010	10	200	50
779-6207	Q4010	10	400	50

15 AMP THERMOTAB TRIAC (ISOLATED)

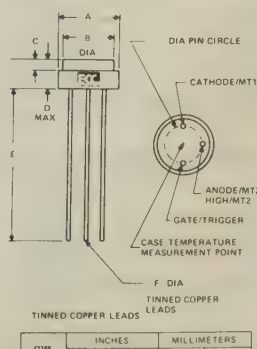
*Diac Igt trigger.

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-6263	Q2015L5	15	200	50
779-6265	Q4015L5	15	400	50
779-6266	Q4015LT*	15	400	50

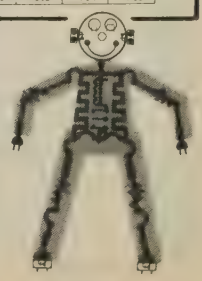
15A ⅝" SWEDGE TRIAC (ISOLATED)

Stock No.	Type No.	Max. I_{TRMS} (A)	Min. V_{DROM} (V)	Max. Igt (mA)
779-6233	Q2015	15	200	50
779-6239	Q4015	15	400	50

¾" SWEDGE "Y" PACKAGE



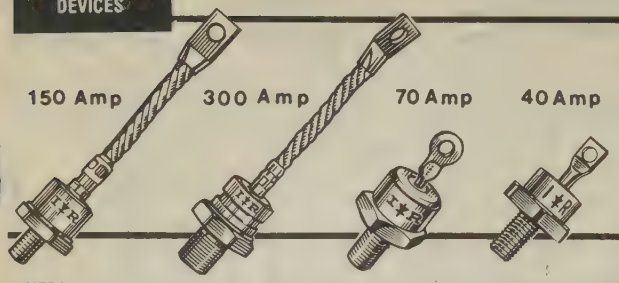
DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	.740	.760	18.80	19.30
B	.680	.690	17.27	17.53
C	.085	.095	2.16	2.41
D		.350		8.89
E	1.560	1.750	39.62	44.45
F	.049	.053	1.24	1.35



Alec Electron

See Semiconductor Directory for Complete Price Information

"Basic 16" Power Rectifiers and Replacement Listings



16 BASIC POWER RECTIFIERS

Stock No.	Mfr's Type	Amps	Volts	EACH	Stock No.	Mfr's Type	Amps	Volts	EACH
817-8402	40HF30	40	300	6.05	817-9085	150K30A	150	300	22.87
817-8401	40HFR30	40	300	6.05	817-9090	150KR30A	150	300	22.87
817-8405	40HF60	40	600	9.93	817-9095	150K60A	150	600	32.70
817-8406	40HFR60	40	600	9.93	817-9100	150KR60A	150	600	32.70
817-9065	70H30A	70	300	10.20	817-9105	300U30A	300	300	25.18
817-9066	70HR30A	70	300	10.20	817-9110	300UR30A	300	300	25.18
817-9080	70H60A	70	600	12.58	817-9115	300U60A	300	600	38.95
817-9079	70HR60A	70	600	12.58	817-9120	300UR60A	300	600	38.95

40HF30 REPLACES

40HFR30 replaces same device with reverse polarity where applicable. (Example: For 1N2450 forward, the reverse is 1N2450R. 40HFR30 replaces 1N2450R reverse.)

1N248,A,B,C	1N1436	1N2450	A40F	MR325	10H3P	389A	419A
1N249,A,B,C	1N2021	1N2451	AGO512	MR1183	20H3P	389B	419B
1N250,A,B C	1N2022	1N2491	AGO1012	MR1184	35H10	389C	419C
1N1183	1N2023	1N2492	AGO1512	MR1185	35H20	389D	419D
1N1184	1N2154	1N2493	AGO2012	MR1186	35H30	389F	419F
1N1185	1N2155	1N2494	AGO2512	MR1187	371A	417A	713A
1N1186	1N2156	1N2793	AGO3012	ST3A10P	371B	417B	713B
1N1187	1N2157	1N2794	AH1020	ST3A20P	371C	417C	713C
1N1191,A	1N2230	1N2795	AH1520	ST3A30P	371D	417D	713D
1N1192,A	1N2232	1N2796	AH2020	ST210P	371F	417F	713F
1N1193,A	1N2272	1N2797	AH2520	ST220P	387A	418A	714A
1N1194,A	1N2273	1N2798	AM3020	ST230P	387B	418B	714B
1N1195,A	1N2274	A40A	MR322	ST410P	387C	418C	714C
1N1434	1N2275	A40B	MR323	ST420P	387D	418D	714D
1N1435	1N2282	A40C	MR324	ST430P	387F	418F	714F

40HF60 REPLACES

40HFR60 replaces same device with reverse polarity where applicable.

1N1188	1N2025	1N2270	1N2454	A40M	MR328	STA50P	40H3P
1N1189	1N2158	1N2276	1N2455	AGO3512	MR1125	STA60P	371H
1N1190	1N2160	1N2277	1N2495	AGO4012	MR1126	ST240P	317K
1N1196,A	1N2218	1N2278	1N2496	AGO5012	MR1188	ST250P	371M
1N1197,A	1N2220	1N2283	1N2497	AGO6012	MR1189	ST260P	387H
1N1198,A	1N2234	1N2284	1N2799	AM3520	MR1190	ST440P	387K
1N1437	1N2236	1N2285	1N2800	AM4020	MR1197	ST450P	387M
1N1438	1N2238	1N2452	A40D	MR326	MR1198	ST460P	389H
1N2024	1N2268	1N2453	A40E	MR327	STA40P	35H40	389K

70H30A REPLACES

70HR30A replaces same device with reverse polarity where applicable.

1N2128,A	1N2132,A	MR1195A	25H30,A	25HB30	302D	303C	402C
1N2129,A	1N2133,A	25H5	25HB5	302A	302F	303D	402D
1N2130,A	1N2788	25H10,A	25HB10	302B	303A	303F	402F
1N2131,A	1N4136	25H20,A	25HB20	302C	303B	402B	

70H60A REPLACES

70HR60A replaces same device with reverse polarity where applicable.

1N2134,A	1N2138,A	MR1196A	25H50,A	25HB60	302M	303M	
1N2135,A	1N2789	MR1197A	25H60,A	302G	303G	402H	
1N2136,A	1N4137	MR1198A	25HB40	302H	303H	402K	
1N2137,A	1N4138	25H40,A	25HB50	302K	303K	402M	

150K30A REPLACES

150KR30A replaces same device with reverse polarity where applicable.

1N1396	1N2173	1N3289,A	MR1811	S5125	ST1020P	45LK20A	150L25A
1N1397	1N2174	1N3290,A	MR1812	S5130	ST1030P	45LK30A	150L30
1N1398	1N2426	1N4587	MR1813	ST610P	45L5	150L10	150L30A
1N1399	1N2427	1N4588	MR1814	ST620P	45L10	150L10A	300A
1N1400	1N2428	1N4589	MR1815	ST630P	45L15	150L15	300B
1N1680	1N2429	A70A	S5105	ST710P	45L20	150L15A	300C
1N1681	1N2430	A70B	S5110	ST720P	45L25	150L20	300D
1N1682	1N2431	A70C	S5115	ST730P	45L30	150L20A	300E
1N2172	1N3288,A	MR1810	S5120	ST1010P	45LK10A	150L25	300F

150K(R)30A are ⅜-24 UNF-2A stud.

150K60A REPLACES

150KR60A replaces same device with reverse polarity where applicable.

1N1401	1N1687	1N4590	MR1817	ST640P	ST1050P	45LK40A	150L50
1N1402	1N2433	1N4591	MR1818	ST650P	ST1060P	45LK50A	150L50A
1N1403	1N2434	1N4592	MR1819	ST660P	45L35	45LK60A	150L60
1N1683	1N2435	A70D	S5135	ST740P	45L40	150L35	150L60A
1N1684	1N3291,A	A70E	S5140	ST750P	45L45	150L35A	300G
1N1685	1N3292,A	A70M	S5150	ST760P	45L50	150L40	300H
1N1686	1N3293,A	MR1816	S5160	ST1040P	45L60	150L40A	300K

150K(R)60A are ⅜-24 UNF-2A stud.

300U30A REPLACES

300UR30A replaces same device with reverse polarity where applicable.

1N1660	1N2057	1N3264	MR1230	70U10	275U25A	339E	439F
1N1661	1N2058	1N3265	MR1231	70U15	275U30A	339F	710A
1N1662	1N2059	1N3735	MR1232	70U20	329A	429A	710B
1N1663	1N3161	1N3736	MR1233	70U25	329B	429B	710C
1N1664	1N3162	1N3737	MR1234	70U30	329C	429C	710D
1N1670	1N3163	1N4044	MR1235	200UB5	329D	429D	710E
1N1671	1N3164	1N4045	ST810P	200UB10	329E	429E	710F
1N1672	1N3165	1N4046	ST820P	200UB20	329F	429F	770A
1N1673	1N3166	1N4047	ST830P	200UB30	329G	439A	770B
1N1674	1N3260	1N4048	ST910P	275U5A	339A	439B	770C
1N2054	1N3261	A90A	ST920P	275U10A	339B	439C	770D
1N2055	1N3262	A90B	ST930P	275U15A	339C	439D	770E
1N2056	1N3263	A90C	70U5	275U20A	339D	439E	770F

300U60A REPLACES

300UR60A replaces same device with reverse polarity where applicable.

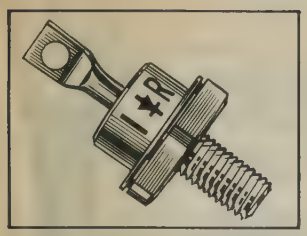
1N1665	1N2063	1N3267	1N4051	MR1238	ST960P	200UB50	329K
1N1666	1N2064	1N3268	1N4052	MR1239	70U35	200UB60	329M
1N1675	1N3167	1N3269	A90D	ST840P	70U40	275U40A	429G
1N1676	1N3168	1N3738	A90E	ST850P	70U45	275U50A	429H
1N2060	1N3169	1N3739	A90M	ST860P	70U50	275U60A	429K
1N2061	1N3170	1N3740	MR1236	ST940P	70U60	329G	429M
1N2062	1N3266	1N4050	MR1237	ST950P	200UB40	329H	439G

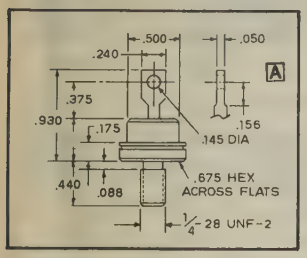
Quality, Fast Service – This is Standard Procedure at Allied Electronics

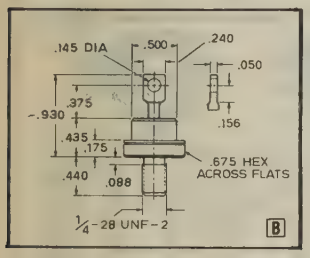
Power Silicon Rectifiers

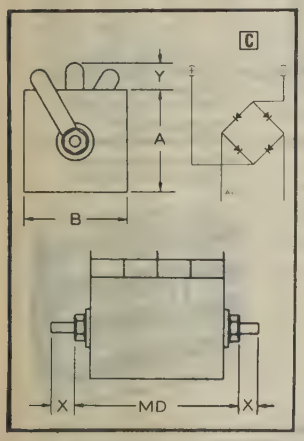
DISCRETE DEVICES

A 35 AND 40 AMP POWER DIODES









VOLTAGE RATINGS

Stock No.	Part No.	V_{RRM}	V_R (RMS)	V_R	I_R (AV)
577-1183	1N1183	50*	35.5*	40*	10*
577-1184	1N1184	100*	71*	80*	10*
577-1186	1N1186	200*	142*	160*	10*
577-1190	1N1190	600*	424*	480*	10*
817-8399	40HF10	100	70	80	7.0
817-8398	40HF20	200	140	160	7.0
817-8402	40HF30	300	210	240	7.0
817-8403	40HF40	400	280	320	7.0
817-8405	40HF60	600	420	80	7.0
817-8409	40HF100	1000	700	320	7.0

*JEDEC registered value.

- Available Through 1000 PRV
- Good Surge Current Ratings
- High Reliability

THERMAL-MECHANICAL SPECIFICATIONS

Series	1N1183-1N1190	40HF	Units	Conditions
T_J	−65° to 190°*	−65° to 180°	°C	
T_{stg}	−65° to 175°	−65° to 180°	°C	
$R_{\theta JC}$	1.0	0.65	°C/W	DC operation
$R_{\theta CS}$	0.25		°C/W	Mounting surface flat, smooth and greased

ELECTRICAL SPECIFICATIONS

Series	1N1183	40HF	UNITS	Conditions
$I_{F(AV)}$ Max. average forward current	35*	40	A	1 phase operation, T_C =140°C
I_{FSM} Max. peak one cycle, non-repetitive surge current	500*	500	A	60 Hz half sine wave, any rated load condition
I^2t Max. I^2t for fusing	1000	1000	A^2sec	t =5 to 8.3 msec
	550	550	A^2sec	t =1.5 msec
V_{FM} Max. peak forward voltage	1.7*	1.47	V	I_F(AV): 1N1183 series =35A (110A peak); 40HF series =40A (126A peak); T_J =25°C

B 60 AND 70 AMP POWER DIODES

VOLTAGE RATINGS

Mfr's Type†	V_{RM} (REP) MAX.	V_R (RMS) MAX.	V_R MAX.	V_{RM} (NON-REP) MAX.	#I_R(AV) MAX.
1N2129A	100*	70	80*	—	10*
70H10A	100	70	100	200	10
70H20A	200	140	200	300	10
70H30A	300	210	300	400	10
70H40A	400	280	400	525	10
70H60A	600	420	600	800	10
70H100A	1000	700	1000	1300	5

†Basic number indicates cathode to case. For anode to case, add "R" to part number, i.e. 1N2128RA, 70HR10A.

#Average reverse current at max. rated I_F(AV) and V_{RM}(REP) (1 Phase of operation) (mA). At T_C =125°C except 1N2129A, T_C =140°C.

- High Surge Current Capacity
- High Voltage Available in 70H Series
- Designed for a Wide Range of Applications

THERMAL-MECHANICAL SPECIFICATIONS

Series	1N2128A	70H-A
T_J	−65° to 200°	−40° to 200°
T_{stg}	−65° to 200°	−40° to 200°
$R_{\theta JC}$	0.7	0.7
$R_{\theta CS}$	0.25	0.25
	20	20
	25	30
	1.0	1.0

*JEDEC registered values.

ELECTRICAL SPECIFICATIONS

	Series	1N2128A	70H-A
$I_{F(AV)}$	Max. average forward current (1 phase operation) (A)	60*	70
	@ T_C =(°C)	140*	125*
I_{FM}(surge)	Max. peak one cycle, non-repetitive surge current (60 Hz sine wave, 1 phase operation) at any rated load condition (A)	900*	1,200
I^2t	Max. I^2t for fusing (non-repetitive for 5 to 8.3 msec) (A^2 sec). Multiply by 0.55 for time =1.5 msec.	3,400	6,000
V_{FM}	Max. peak forward voltage drop @ rated $I_{F(AV)}$ (1 phase operation) (V)	1.30*	1.35
	@ T_C =(°C)	140**	125*

C STANDARD FULL WAVE RECTIFIER BRIDGE

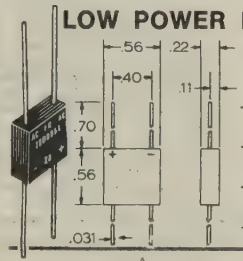
Mfr's Type	Max. AC Input (Vrms)	Max. DC Output Cur. (A)	DC Output Voltage Range (V)	Dimensions (Inches) A	B	MD	X	Y	Stud
J29B1	36	1.5	0-29	1.5	1.5	1.5	.38	.44	8-32
J29B5	36	5.0	0-29	3.0	3.0	2.63	.75	.63	¾-16
J29B8	36	10.0	0-29	4.0	4.0	2.63	.75	1.12	⅜-16
J58B8	72	10.0	0-58	4.0	4.0	4.19	.75	1.12	⅜-16
J116B04	144	0.5	0-116	1.0	1.0	3.81	.38	.44	8-32
J116B1	144	1.5	0-116	1.5	1.5	3.81	.38	.44	8-32
J116B5	144	5.0	0-116	3.0	3.0	7.19	.75	.63	⅜-16
J135B1	180	1.5	0-135	1.5	1.5	4.56	.38	.44	8-32

D E AC TYPE KLIP-SELS

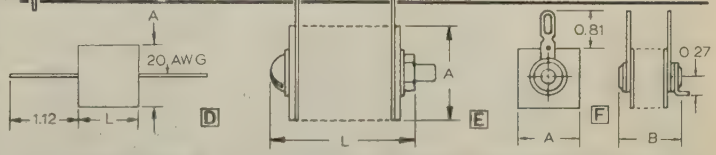
SOLID STATE DEVICE		SUPPRESSOR		THRU 3 AMP PEAK CURRENT 0.25A Fig. D (A=.57" max. dia.)		THRU 16 AMP PEAK CURRENT 1.0A Fig. D (A=.70" max. dia.)		THRU 60 AMP PEAK CURRENT 3.0A Fig. E (A=1" Sq.)	
(V_{RRM})	(V_{RSM})*	(V_{RMS})	(V_{pk})†	IR PART NO.	L Dim. (max.)	IR PART NO.	L Dim. (max.)	IR PART NO.	L Dim. (max.)
100	150	52	140	KY2DPF	0.63"	KZ2DPF	0.63"	KSA2DAF	1.50"
250	350	130	350	KY5DPF	0.63"	KZ5DPF	0.63"	KSA5DAF	1.87"
300	425	156	420	KY6DPF	0.88"	KZ6DPF	0.88"	KSA6DBF	2.00"
500	650	234	630	KY9DPF	0.88"	KZ9DPF	0.88"	KSA9DBF	2.34"
600	800	260	700	KY10DPF	0.88"	KZ10DPF	0.88"	KSA10DBF	2.46"
700	925	312	840	KY12DPF	0.88"	KZ12DPF	0.88"	KSA12DBF	2.71"

*Not standardized. Check drive specifications. †Max. clamping voltage at peak current.

LOW POWER MOLDED CIRCUIT ASSEMBLIES



Stock No.	Mfr's Type	V_{RM} (rep) V
		1.8 I_F (AV) Amps / 5.0 I_{FM} (surge) Amps
817-8287	18DB2A	200
817-8306	18DB4A	400
817-8310	18DB6A	600
817-8314	18DB10A	1000

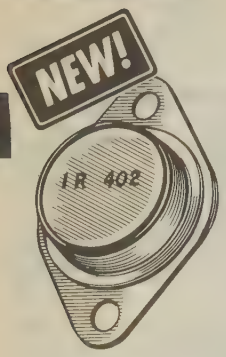


MINIATURE HALF WAVE RECTIFIER BRIDGES

Half wave entertainment power supply replacement rectifiers for AC to DC conversion. All have 130 volts rms maximum AC input and 380 volts peak reverse voltage.

Mfr's Type	Fig.	Max. AC Input (V rms)	Max. DC Output (mA)	Peak Reverse Voltage	Dimensions A Sq.	B
E075L	F	130	75	380	0.66	0.75
E150L	F	130	150	380	1.0	1.0
E500L	F	130	500	380	1.5	1.25

Power and Universal Replacement Transistors



NPN POWER TRANSISTORS

NPN Power Transistors are glass passivated for exceptional stability, and feature low saturation voltage. The transistors are triple diffused for high voltage with a wide safe-operating area, and fast switching.

NPN Power Transistors have several applications, including use in inverters and chopper regulators, switching regulators, and ignition circuits, as well as in other high voltage switching power supplies.

SPECIFICATIONS

Stock No.	Mfr's Type	V_{CEO} (sus) (Max. V)	I_C cont. (Max. A)	h_{FE} (Min./ Max.)	@I_C (A)	V_{CE} (sat) (Max. V)	@I_C (A)	P_D (W)	f_T (MHz)
578-0401	IR401	300	5	20/100	0.5	0.8	0.5	100	2.5
578-0402	IR402	325	7	—	—	2.0	3.0	125	2.5
578-0403	IR403	325	7	—	—	1.1	3.5	125	—
578-0409	IR409	300	7	15	1.0	1.2	1.0	100	2.5
578-0410	IR410	200	5	30/90	1.0	0.8	1.0	100	2.5
578-0411	IR411	300	5	30/90	1.0	0.8	1.0	100	2.5
578-0413	IR413	325	5	20/80	0.5	0.8	0.5	125	4.0
578-0423	IR423	325	7	30/90	1.0	0.8	1.0	125	2.5
578-0424	IR424	350	5	30/90	1.0	0.8	1.0	100	2.5
578-0425	IR425	400	5	30/90	1.0	0.8	1.0	100	2.5
578-0430	IR430	300	7	15/45	2.5	0.9	2.5	125	2.5
578-0431	IR431	325	7	15/35	2.5	0.7	2.5	125	2.5

POWER TRANSISTOR CROSS REFERENCE

Stock No.	IR P/N	Delco P/N	RCA P/N	Motorola P/N
578-0401	IR401	DTS401		MJ3026 MJ3027
578-0402	IR402	DTS402 2N3902		MJ3028 MJ3030 2N3788 2N3902
578-0403	IR403	DTS403		
578-0409	IR409	DTS409		
578-0410	IR410	DTS410	RCA410	MJ410
578-0411	IR411	DTS411	RCA411 2N5838 2N5839	MJ411 MJ1800 MJ3029 MJ3430
578-0413	IR413	DTS413	RCA413 RCA5840	MJ413
578-0423	IR423	DTS423	RCA423	MJ423
578-0424	IR424	DTS424		MJ424
578-0425	IR425	DTS425		MJ425
578-0430	IR430	DTS430	2N5239 2N5240	MJ430
578-0431	IR431	DTS431	RCA431 2N5240	MJ431 2N5241

FAST-SWITCHING POWER TRANSISTORS

NEW!

These power transistors are designed for the fast switching speed characteristics necessary for 20KHz line-operated switching power supplies and CRT display terminals. They are a reliable component in off-line inverters and switching regulators, and also may be used as the horizontal drive transistor in deflection circuits.

FAST SWITCHING SPEED — COOLER OPERATION

Gives extremely low switching losses for cooler operation and higher reliability.

LOWER LEAKAGE — HIGH TEMPERATURE STABILITY

With **CEO**in the microamp range, these devices have an extremely low leakage rate. Provide the higher stability important for high performance at elevated temperatures.

GLASS PASSIVATION — LONG-TERM RELIABILITY

High reliability and long term stability is achieved by hard glass passivation. When paralleling devices, the tight gain, switching time, and saturation voltage control of the transistors make the job easier.

Stock No.	Mfr's Type	V_{CEO} (sus) (Max. V)	I_C Peak (A)	h_{FE} (Min/ Max.)	@I_C (A)	V_{CE} (sat) (Max. V)	@I_C (A)	P_d (W)	$t_{r/tf}$ (us)
578-6306	2N6306	250	16	15/75	3.0	0.8	3.0	125	.6/.4
578-6307	2N6307	300	16	15/75	3.0	1.0	3.0	125	.6/.4
578-6308	2N6308	350	16	12/60	3.0	1.5	3.0	125	.6/.4
578-6542	2N6542	300	10	7/35	3.0	1.0	3.0	100	.7/.8
578-6543	2N6543	400	10	7/35	3.0	1.0	3.0	100	.7/.8
578-6544	2N6544	300	16	7/35	5.0	1.5	5.0	125	1/1
578-6545	2N6545	400	16	7/35	5.0	1.5	5.0	125	1/1

TYPE DK22 REPLACEMENT TRANSISTOR KIT

- **22 Specially Selected Transistors**
- **Meets 90% of All Servicing Needs**
- **Minimum Inventory—Maximum Coverage**

The most popular transistors for replacement—designed for the professional service technician. 24-drawer cabinet with labels contains the 22 specially selected types, providing replacement for thousands of foreign and domestic transistors. Full cross-reference data is included with the kit. Shpg. wt. 5 lbs.

817-9802. ..... Per Kit 35.45

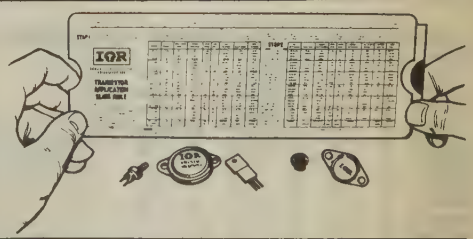
Part No.	Description
TR01	Hi-pwr. audio amp & switching
TR05	Med. power & hi-gain audio amp & switching
TR08	Medium power general purpose amp
TR16	Hi power low leakage amp
TR17	General-purpose low power, DC to VHF band, hi gain, low noise amp
TR21	Hi speed switch circuits
TR23	Hi-volt power transistor
TR24	General-purpose small-signal NPN, low-noise amplifier
TR25	Medium current NPN switch and audio to RF frequency amp
TR28	Medium current PNP switch & audio to RF
IRTR51	General-purpose NPN small-signal amp from DC to high frequency
IRTR52	General-purpose PNP small-signal amp
IRTR53	General-purpose NPN large-signal amp and medium speed switching
IRTR54	G.P. PNP switching & amp, DC to VHF
IRTR55	Med. power NPN audio amp & switch
IRTR60	Medium power hi-voltage NPN
IRTR76	NPN silicon hi-pwr. audio amp output
IRTR77	PNP silicon hi-pwr. audio amplifier
IRTR78	Hi-voltage TV video output amplifier
IRTR85	Medium-power hi-gain general-purpose
IRTR87	Audio preamp, driver output, video amp
IRTR92	AF power output
IRTR95	RF amp mixer, oscillator & IF amp

TRANSISTOR APPLICATION SLIDE RULE

New transistor application slide rule lists 29 circuits (described at right) covered by the Universal replacement transistor line, shown on this page. Ideal for use in finding a suitable replacement transistor if the number is not listed in a cross-reference guide. By simply sliding the indicator to the circuit you are working in, the transistors most likely to be used are indicated clearly. Then, by using known parameters from the schematic, you can make your selection easily. Tested and used in the field—an accepted cross-reference tool for the semiconductor user. Especially useful in industrial service, research and production work.

817-9803. Type TAS 100 ..... Each 1.33

COVERS: IF amp AM band; IF amp FM and TV sound carrier; oscillator AM band; RF amp AM band; all-wave and FM band RF amp; AM band converter; all-wave and FM band converter; all-wave and FM oscillator; RF power CB and amateur communication; vertical driver; vertical output; horizontal driver; horizontal output; sync separator and inverter; RF amp and IF amp UHF, VHF and FM bands; audio driver; audio output (high power); audio output (high voltage); audio output (low power); audio output (medium power); audio preamp; video output; video buffer/driver; chroma output; color killer; 1st, 2nd video IF amp; 3rd video IF; AGC keyer/amp; VHF oscillator tuner.



UNIVERSAL REPLACEMENT SILICON AND GERMANIUM TRANSISTORS

Stock No.	Type No.	Description	Case	Min. BV	Volt. BV	Max. Curr.	Max. Power
817-9701	TR01	Hi-power audio amp & switch	TO-3	50	65	10 A	90 W
817-9703	TR03	Hi-power & gain amp & switch	TO-36	30	50	15 A	150 W
817-9705	TR05	Med. pwr. hi-gain amp & sw.	TO-5	15	25	200 mA	200 mW
817-9708	TR08	Med. pwr. gen. purpose amp	TO-5	20	42	500 mA	500 mW
817-9717	TR17	Low pwr. hi-gain, low noise	TO-72	20	30	50 mA	200 mW
817-9721	TR21	Hi speed switch	TO-18	40	75	800 mA	500 mW
817-9723	TR23	Hi-voltage power transistor	TO-66	300	325	3 A	20 W
817-9724	TR24	Sm. sig. NPN, low noise amp	TO-92	40	60	200 mA	500 mW
817-9725	TR25	Med. cur. switch, audio to RF	TO-5	40	60	500 mA	5 W
817-9727	TR27	Hi-voltage PNP power	TO-3	300	320	10 A	56 W
817-9728	TR28	Med. cur. PNP sw. & audio-RF	TO-5	40	60	500 mA	5 W
817-9751	IRTR51	G.P. NPN small signal amp	TO-106	45	60	100 mA	310 mW
817-9752	IRTR52	G.P. PNP small signal amp	TO-106	45	50	100 mA	310 mW
817-9753	IRTR53	NPN large sig. amp/med. spd. sw.	TO-106	50	90	300 mA	310 mW
817-9754	IRTR54	G.P. PNP switch & amp, DC to VHF	TO-92	35	40	600 mA	310 mW
817-9755	IRTR55	Med. pwr. NPN audio amp/sw.	X-51A	55	60	3 A	12.5 W
817-9760	IRTR60	Med. power hi-volt NPN	X-58	275	300	500 mA	20 W
817-9776	IRTR76	Sil. hi-pwr. audio amp output	PT66	60	60	4 A	40 W
817-9777	IRTR77	Sil. hi-pwr. audio amp	PT66	60	60	4 A	40 W
817-9778	IRTR78	Hi-V TV video out amp	TO-39	300	300	100 mA	7 W
817-9785	IRTR85	Audio driver, preamp output	TO-1	32	32	500 mA	900 mW
817-9787	IRTR87	Audio preamp, dr., video amp	TO-5	80	100	1 A	1 W
817-9792	IRTR92	AF output for auto receivers	PT-66	70	90	7 A	50 W
817-9795	IRTR95	RF amp, mixer, osc., IF amp	TO-104	45	45	50 mA	180 mW
817-9800	FE100	Field effect transistor	TO-92	25*	25†	15 mA	200 mW
817-9801	IR2160	Unijunction transistor	TO-92	30‡	35§	50 mA	300 mW

*Vgs (max.). †Vds (max.). ‡V (Max.). §V (max.).

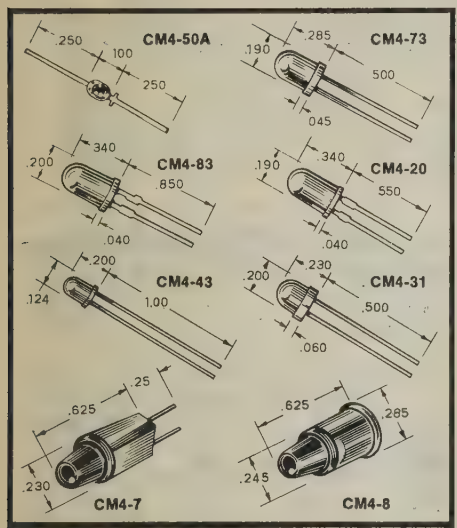
See Semiconductor Directory for Complete Pricing Information

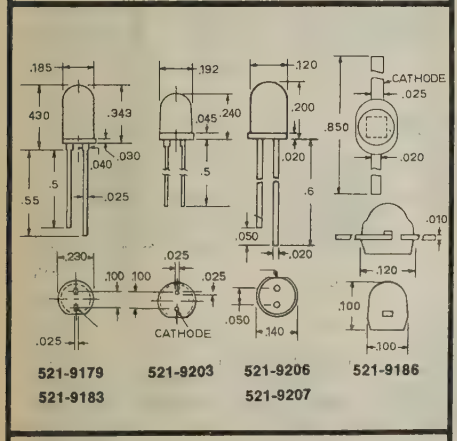
LED's, Solid State Lamps & Fault Indicators

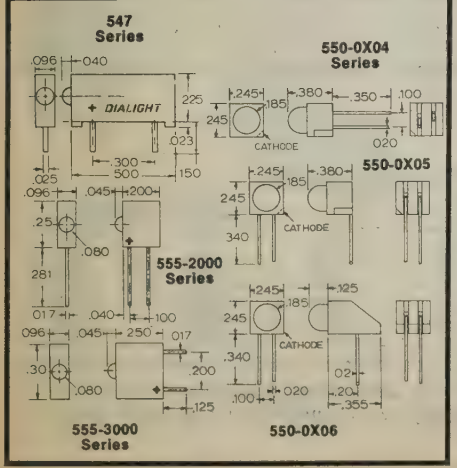
SOLID-STATE DEVICES

LED CROSS REFERENCE

Chicago Miniature	Dialight	Fairchild	Lamps Inc. (Oak Industries)		Litronix		Monsanto		Motorola		National	
CM-20, 21, 22	.....	FLV161	LA6502	LA6504	RL2102 RL-20 RL5054-1	RL2104 RL-21	MV5020	MV5022	.....	.....	NSL5020	NSL5022
CM4-23, 83	.....	FLV160	LA6501	LA6503	RL4403 RL4850	RL4440 RL-21	MV5021 MV5024 MV5010	MV5023 MV5026 MV5012	MLED650	MLED655	NSL5023 NSL5026	NSL5024
CM4-31	.....	FLV103, 141	.....		.....	.....	.....	.....	.....	.....	.....	.....
CM4-43	.....	FLV102, 106	.....		RL209		MV5074		MLED509		.....	.....
CM4-43	521-9167	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
CM4-43	521-9189	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
CM4-50	.....	.....	.....		RL50		MV50		MLED50		.....	.....
CM4-53	.....	.....	.....		RL50-01	RL54	MV54		MLED55	MLED600	.....	.....
CM4-71B	521-9166	.....	.....		.....	.....	.....	.....	.....	.....	.....	.....
CM4-73	521-9165	FLV110, 117	LA6001		RL-2		MV5033		.....	.....	.....	.....
.....	521-9166	FLV112	LA6003		RL203		.....	.....	.....	.....	.....	.....
.....	520-9190	FLV111	LA6002	LA6004	RL202	RL204	MV5030		.....	.....	.....	.....
.....	.....	FLV150	LA6401	LA6403	RL-2003	RL-20	MV5053 MV5056	MV5055	MLED600 MLED650 MLED660	MLED640 MLED655	.....	.....
.....	.....	FLV151	LA6402	LA6404	RL2002	RL2004	MV5054-1		.....	.....	.....	.....







GALLIUM ARSENIDE PHOSPHIDE LIGHT EMITTING DIODES

CM4-50A SERIES. For indicators and arrays. CM4-50 Clear—transp. CM4-52 Red—transl. (diffused). **Max. Rat. @ 25°C:** Cont. Fwd. A—40mA. Pk. Fwd. A—3A. Rev. V—3V. **Electro-Optical Char. @ 25°C:** Lum. Inten.—CM4-50, 1.4 mcd; CM4-53, 1.0 mcd at 20mA. Fwd. V—1.7V typ.; 2V max. 80° viewing angle.

CM4-73A SERIES. Plastic encap. Red light in 660 nm region. 110° viewing angle. For indicators and displays. **Max. Rat. @ 25°C:** Cont. Fwd. A—50mA. Pk. Fwd. A—3A. Rev. V—3V. **Electro-Optical Char. @ 25°C:** Lum. Inten. 2 mcd typ. at 20mA. Fwd. V—1.6V typ.; 2V max.

CM4-83 SERIES. Plastic encap. Red light in 660 nm region. Red diffused lens; T-1¾ size. Panel, back lighting appli. **Max. Rat. @ 25°C:** Cont. Fwd. A—100mA. Pk. Fwd. A—3A. Rev. V—3V. **Electro-Optical Char. @ 25°C:** Lum. Inten.—1.5 mcd min.; 3.0 mcd typ. at 20 mA. Fwd. V—1.6V typ.; 2.2V max. 24° viewing angle.

CM4-20 SERIES. Panel mount indicators. Mtg. clip. CM4-20 Clear—transp. CM4-21 Clear—transl. (diffused). CM4-22 Red—transp. CM4-23 Red—transl. (diffused). **Max. Rat. @ 25°C:** Cont. Fwd. A—100mA. **Electro-Optical @ 25°C:** Lum. Inten.—CM4-20, 2 mcd; MC4-21 and -22, 1.6 mcd CM4-23, .04 mcd typ. at 20mA. Fwd. V—1.6V.

CM4-43 SERIES. Plastic encap. Rad. in 660 nm region. Red diffused lens and T-1 size. High density arrays and indicators. **Max. Rat. @ 25°C:** Cont. Fwd. A—40mA. fwd. A—3A. Rev. V—3V. **Electro-Optical Char @ 25°C:** Lum. Inten.—.3 mcd min.; .8 mcd typ. at 20 mA. Fwd. V—1.6V typ.; 2V max. 90° viewing angle.

CM4-31 SERIES. Plastic encap. Rad. red in 660 nm region. Clear diffused lens. Indicators and back lighting. **Max. Rat. @ 25°C:** Cont. Fwd. A—50mA. Pk. Fwd. A—3A. Rev. V—3V. **Electro-Optical Char. @ 25°C:** Lum. Inten. 2.5 mcd typ. at 20mA. Fwd. V—1.6V typ.; 75° angle.

RED CM4-7 AND CM4-8 SERIES. Interchangeable with industry standard T-1¾ incandescent lamps. Rated 70°C. Wide angle visibility. High brightness. **Red. Transp.:** CM4-7025 (Bi-Pin Base); CM4-8025 (Midget Flange Base) —Rated 1.7 VDC; 50mA at rated voltage; 1.5-1.7 VDC Oper.; .625″ M.O.L. **Clear Transp.:** CM4-7027 (Bi-Pin Base); CM4-8027 (Midget Flange Base) same as above.

Stock No.	Mfr's Type	Lens Color	EACH 1-24	25-999	1000-Up
649-0450	CM4-50A	Clear*	.46	.26	.18
649-0453	CM4-53A	Red	.45	.26	.17
649-0473	CM4-73A	Red	.33	.27	.22
649-0483	CM4-83	Red	.34	.28	.23
649-0420	CM4-20	Clear*	.50	.42	.35
649-0421	CM4-21	Clear	.50	.42	.35
649-0422	CM4-22	Red*	.50	.42	.35
649-0423	CM4-23	Red	.50	.42	.35
649-0443	CM4-43	Red	.39	.34	.30
649-0431	CM4-31	Clear	.60	.45	.39
649-7025	CM4-7025	Red*	1.88	1.23	.87
649-7027	CM4-7027	Clear*	1.88	1.23	.87
649-8025	CM4-8025	Red*	1.88	1.23	.87
649-8027	CM4-8027	Clear*	1.88	1.23	.87

*Transparent lens; others translucent (diffused).

GALLIUM ARSENIDE PHOSPHIDE SOLID STATE LAMPS

Many applications including panel lighting, circuit status indicator, numeric or alpha-numeric displays and visual indicators. IC compatible with low power consumption. Red, green or yellow diffused lens.

TYPES 521-9179 AND 521-9183. Red diffused lens. Integral current-limiting resistor (521-9183 only). IC compatible—16 mA at 5 V (typ.). Wide viewing angle. T-1¾ package; long wire-wrappable leads. **Oper./storage temp.:** —55° to +100°C. Characteristics at 25°C: **Luminous intensity,** 0.8 mcd min. at I_F=20 mA for 521-9179, at V_F=5V for 521-9183; **Forward voltage,** 1.6 V typ. for type 521-9179; **Forward current,** 15 mA typ. for 521-9183; Response: 10 ns for 521-9179, 15 ns for 521-9183.

TYPE 521-9203. Green diffused lens; T-1¾ package. High luminous intensity; 0.8 mcd at 25°C. Low power consumption. Miniature size for maximum front panel density. **Continuous forward current:** 40 max. **PRV:** 5V max. **Oper. temp.:** —20° to +100°C. **Dissipation:** 112 mW max. at 25°C; derate 1.49 mW/C. Forward voltage: 2.0 V typ. at 25°C.

TYPES 521-9206 (Green diffused) AND 521-9207 (Yellow diffused). Miniature LED with axial leads; T-1 package. 10 mA operation for typical brightness. **Luminous intensity:** 0.6 mcd min. at 25°C. **Forward voltage:** 1.8 V min. at 10 mA. **Dissipation:** 112 mW at 25°C. **Continuous forward current:** 40 mA max. **PRV:** 5 V.

TYPE 521-9186. Red diffused lens. High luminesence, 750 ft.-lamberts at 20 mA. Low power consumption; operates from 5-volt IC logic supply. Small size; vibration/shock resistant. Designed for high volume usage in array and indicator lights. **Luminous intensity:** 0.8 mcd typ. at 25°C. **Forward current:** 40 mA max. **Reverse voltage:** 3 V max. **Forward voltage:** 1.6 V typ. at 25°C. **Rise/fall time:** 1.0 ns. **Power dissipation:** 80 mW max., derated 1.1 mW/°C above 25°C.

Stock No.	Mfr's Type	Color	With Resistor	EACH 1-9	10-24	25-Up
770-7010	521-9179	Red	No	1.25	.90	.84
770-7020	521-9183	Red	Yes	1.87	1.35	1.25
770-7030	521-9186	Red	No	1.13	.81	.75
770-7040	521-9203	Green	No	1.87	1.35	1.25
770-7050	521-9206	Green	No	1.87	1.35	1.25
770-7060	521-9207	Yellow	No	1.87	1.35	1.25

LED LOGIC STATE/FAULT INDICATORS

Typical uses include: fault indicator for troubleshooting complex PC cards; logic state indicator; binary data display (can be stacked to display multiple functions). Very low power consumption; drive from DTL/TTL logic.

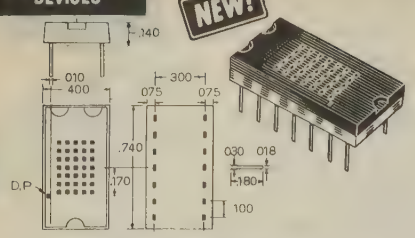
547 SERIES. Red LED. Compact design for dense packaging. Pin spacing compatible with DIP sockets. Built-in series resistor (except 547-2001, *max. DC forward current, 50 mA; typical operating current, 20 mA.) Gold-plated leads for easy soldering into PC boards. Polarity identified. †For higher brightness, can be operated at 6V at 20 mA.

550 SERIES. Green, yellow, or red LED without integral resistor, or 550-050X Red LED (‡) with resistor for operation at 5V, 15mA. **Forward voltage:** 1.8 V type for other red, 2.2 V for green and yellow. **Reverse breakdown voltage:** 3V. High luminous intensity; 2.0 mcd for red, 1.0 mcd for green and yellow (typical). IC compatible; low power consumption. Designed for easy circuit board assembly. **Rise/fall time:** 10 nsec. **Forward current:** 50 mA for red LED, 40 mA for green and yellow. **Dissipation:** 100 mW at 25°C for red, 112 mW for green and yellow. Polarity identified.

555 SERIES. Red diffused lens. Built-in series resistor (except 555-2001 and 555-3001). Polarity identified. **Dimensions:** 555-2001, 555-2003, and 555-2004 are .250x .096x.200″; 555-3001 and 555-3003 are .300x.096x.250″. †For higher brightness, can be operated at 6V at 20 mA.

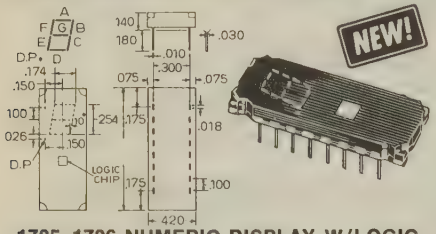
Stock No.	Mfr's Type	LED Color	Ratings V	mA	EACH 1-9	10-24	25-99	100-Up
770-7110	547-2001	Red	1.7	*	3.62	2.61	1.70	1.57
770-7120	547-2003	Red	5	6	3.70	2.66	1.74	1.61
770-7130	547-2004	Red	5†	16	3.70	2.66	1.74	1.61
770-7210	550-0204	Grn.	..	..	2.97	2.14	1.98	1.58
770-7220	550-0205	Grn.	..	..	2.97	2.14	1.98	1.58
770-7230	550-0206	Grn.	..	..	2.97	2.14	1.98	1.58
770-7240	550-0304	Yel.	..	..	2.97	2.14	1.98	1.58
770-7250	550-0305	Yel.	..	..	2.97	2.14	1.98	1.58
770-7260	550-0306	Yel.	..	..	2.97	2.14	1.98	1.58
770-7270	550-0404	Red	..	..	1.47	1.06	.98	.78
770-7280	550-0405	Red	..	..	1.47	1.06	.98	.78
770-7290	550-0406	Red	..	..	1.47	1.06	.98	.78
770-7300	550-0504	Red	5‡	15‡	2.22	1.60	1.48	1.18
770-7310	550-0505	Red	5‡	15‡	2.22	1.60	1.48	1.18
770-7320	550-0506	Red	5‡	15‡	2.22	1.60	1.48	1.18
770-7400	555-2001	Red	1.7	*	1.82	1.31	1.21	.76
770-7410	555-2003	Red	5	6	2.02	1.45	1.35	.84
770-7420	555-2004	Red	5†	16	2.02	1.45	1.35	.84
770-7430	555-3001	Red	1.7	*	2.00	1.44	1.33	.84
770-7440	555-3003	Red	5	6	2.22	1.60	1.48	.92

LED's, Displays and Hardware



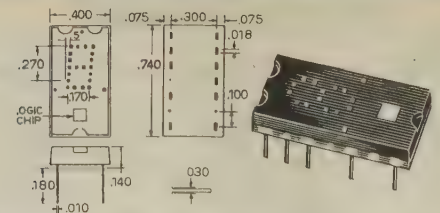
1704 5x7 ALPHA-NUMERIC DISPLAY

Solid state visible display with red transparent plastic encapsulation. 0.3″ high (7.620mm) character. 5x7 array with X-Y select and decimal. Compatible with USASCII and EBCDIC codes with appropriate decoding.



1705, 1706 NUMERIC DISPLAY W/LOGIC

Solid state with integral TTL MSI circuit chip. Character height: 0.270″ (6.858mm). Left decimal. Easy system interface. Constant-current drive for LEDs. ½ power type logic. With latch, decoder, driver. **1705:** for use where data to be displayed is the pulse count; with counter (18 MHz). **1706** for BCD data display.



NEW!

1707 HEXADECIMAL DISPLAY W/LOGIC

Solid state with TTL circuit to accept, store and display 4-Bit binary data. 0.270″ high (6.858mm) character. Left- and right-hand decimals. Separate LED and logic power supplies may be used. Internal TTL MSI chip with latch, decoder and driver. Operates from 5V or 6V supply. Constant-current drive for hexadecimal characters. Easy system interface. Can be operated in real-time mode or latched-update-only mode by use of latch strobe input.

Light Emitting Diode Digital Displays

ORDERING TABLE

Stock No.	Mfr's Type	Color	EACH 1-9	EACH 10-99	EACH 100-Up
658-1000	1704	...	12.00	8.00	6.80
658-1010	1705	...	17.00	11.00	9.40
658-1020	1706	...	17.00	11.00	9.40
658-1030	1707	...	17.00	11.00	9.40
658-1050	1712	Red	3.50	3.00	2.70
658-1060	1712	Green	3.50	3.00	2.70
658-1070	1712	Yellow	3.50	3.00	2.70
658-1080	1714	Red	4.90	4.25	3.50
658-1090	1714	Green	4.90	4.25	3.50

1712, 1714 RED & GREEN LED DIGITAL DISPLAYS

Series 1712. Convenient .3″ high, 7 segment characters. Reflectorized design. Low IC-compatible power requirements: V_f = 1.9V; I_f = 1mA. Std. 14-pin, 3″ C/C, DIP packaging; Install in 2 to 8 digit multiples with mtg. hardware (listed below). Interchangeable with most .3″ LEDs. **Series 1714.** Large .6″ high, 7 segment characters. Reflectorized design. Low IC-compatible power requirements: V_f = 2.0V; I_f = 20mA. Dual-in-line, 18-pin, .83″ C/C packaging.

Series 1712

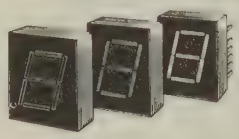
D.P. Diameter	.040″ nom.
Segment width	.034″ nom.
Vertical segment length*	.133″ nom.
Horizontal segment length*	.120″ nom.

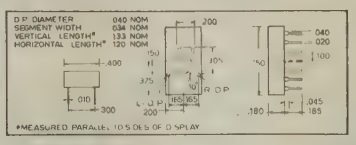
* Measured parallel to sides of display

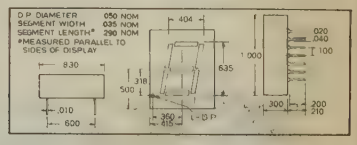
Series 1714

D.P. Diameter	.050″ nom.
Segment width	.035″ nom.
Segment length*	.290″ nom.

* Measured parallel to sides of display




D.P. DIAMETER .040 NOM
SEGMENT WIDTH .034 NOM
VERTICAL LENGTH* .133 NOM
HORIZONTAL LENGTH* .120 NOM
*MEASURED PARALLEL TO SIDES OF DISPLAY



OPTOELECTRIC CHARACTERISTICS @ 25°C

Characteristic	Min.	Typ.	Max.	Units	Conditions
Luminous Intensity	100	250		µcd	I_F=10ma
Forward Voltage	1.8	1.9	2.4	Volts	I_F=10mA
Reverse Current		1.0	100	µA	V_R=3.0V
Peak Wave Length					
Red		697		nm	
Green		560		nm	
Yellow		580		nm	

ABSOLUTE MAX. RATINGS @ 25°C

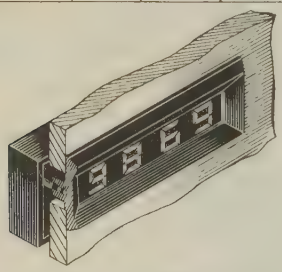
Description	Max. Ratings
Power dissipation	400mW
Operating and storage Temperature range	−20 to +100°C
Average forward current per segment or decimal point	25mA
Derate linearly from 25°C	0.33 mA/°C
Peak pulse current, 1µS pulse 1% duty cycle	1.0A
Peak reverse voltage segment or decimal point	5V

OPTOELECTRIC CHARACTERISTICS @ 25°C

Characteristic	Min.	Typ.	Max.	Units	Conditions
Luminous Intensity	100	250		µcd	I_F=20mA
Forward Voltage	1.8	2.0	2.8	Volts	I_F=20mA
Reverse Current		1.0	100	µA	V_R=3.0V
Peak Wave Length					
Red		697		nm	
Green		560		nm	

ABSOLUTE MAX. RATINGS @ 25°C

Description	Max. Ratings
Power dissipation	400mW
Operating and storage Temperature range	−20 to +100°C
Average forward current per segment or decimal point	25mA
Derate linearly from 25°C	0.33 mA/°C
Peak pulse current, 1µS pulse 1% duty cycle	1.0A
Peak reverse voltage segment or decimal point	5V
Lead soldering equipment	+260°C, 5 sec.

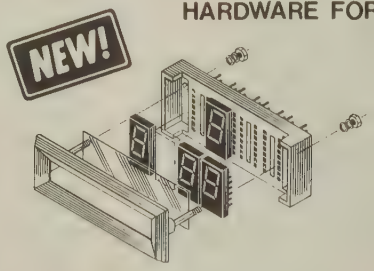


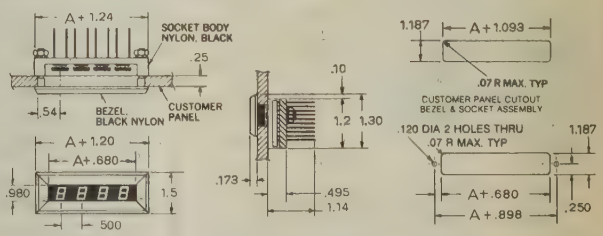
MODEL 1750 LED MOUNTING HARDWARE

For any 14-16 pin DIP package, with .3″ row spacing. One piece bezel eliminates joints and seams. Any std. 14 or 16 pin LED display automatically centers itself. Eliminates individual DIP sockets but allows for easy removal of individual LEDs. Polarized viewing screen eliminates ambient reflections. Assembly consists of a black nylon bezel requiring a single rectangular panel cutout, a red circularly polarized viewing screen and a universal socket body ready for wire wrap or PCB insertion.

HARDWARE FOR ABOVE

NEW!





Construction: Viewing screen is a circular polarized red laminated cellulose acetate butyrate plastic which reduces any unwanted reflections from components mounted in any visible areas behind the viewing screen. The laminated screen construction consists of a linear polarizer and a quarter-wave retardation plate. Bezel body is black, glass-filled nylon. Socket body is black glass-filled nylon. Socket contacts are phosphor bronze, 100µ inch bright tin plate.

Characteristics: Operating temperature range: 0°C to +70°C. Display brightness is inversely related to the operating temperature. Maximum natural air convection around the display should be provided in installation. Storage temperature range: −55°C to +100°C.

Front Mounted Bezel and Socket Assembly (Basic Model No.)	Rear Mounted Viewing Screen and Socket Assembly (No Bezel)	Decades Per Assembly	A In.	A mm
N.A.	N.A.	1	N.A.	N.A.
1750-02	1750-22	2	0.500	12.70
1750-03	1750-23	3	1.00	25.40
1750-04	1750-24	4	1.500	38.10
1750-05	1750-25	5	2.000	50.80
1750-06	1750-26	6	2.500	63.50
1750-07	1750-27	7	3.000	76.20
1750-08	1750-28	8	3.500	88.90

BEZEL ASSEMBLY ONLY

Stock No.	Mfr's Type	Color	EACH 1-9	EACH 10-99	EACH 100-Up
658-1180	23441-02	Red	2.22	1.73	1.51
658-1190	23441-02	Neutral	2.22	1.73	1.51
658-1200	23441-03	Red	2.46	1.93	1.67
658-1210	23441-03	Neutral	2.46	1.93	1.67
658-1220	23441-04	Red	2.72	2.14	1.83
658-1230	23441-04	Neutral	2.72	2.14	1.83
658-1240	23441-05	Red	2.93	2.31	1.96
658-1250	23441-05	Neutral	2.93	2.31	1.96
658-1260	23441-06	Red	3.10	2.44	2.06
658-1270	23441-06	Neutral	3.10	2.44	2.06
658-1280	23441-07	Red	3.22	2.54	2.14
658-1290	23441-07	Neutral	3.22	2.54	2.14
658-1300	23441-08	Red	3.42	2.71	2.26
658-1310	23441-08	Neutral	3.42	2.71	2.26

SOCKET ASSEMBLY ONLY

Stock No.	Mfr's Type	EACH 1-9	EACH 10-99	EACH 100-Up
658-1110	22464-02	3.00	2.34	2.04
658-1120	22464-03	3.78	2.96	2.55
658-1130	22464-04	4.55	3.57	3.05
658-1140	22464-05	5.36	4.22	3.58
658-1150	22464-06	6.21	4.90	4.14
658-1160	22464-07	7.10	5.61	4.72
658-1170	22464-08	7.92	6.26	5.26

Here's Alec Electron, our dependable Allied Man. Allow him to take you on an exciting tour of our Electronics Guide. He's got lots to show you . . . .

Larger Quantity Price Breaks Available on Request

Precision Thermistors

1% (0.2°C) INTERCHANGEABLE THERMISTORS (−80° to +150°C)

Negative temp. coeff.; large resistance change for small temp. change. Thermistors of a given value will match standard temp.-resistance curves and each other to ±1% (±0.2°C) at 25°C. Time constant: 1 sec. max. in well stirred oil, 10 sec. max. in still air. Diss. constant: 8 mW/°C in oil, 1 mW/°C in still air. Epoxy encapsulated. Size, Fig. 1. ¼ oz.

Stock No.	Mfr's Type	Base Res. Ohms@25°C	Stock No.	Mfr's Type	Base Res. Ohms@25°C
997-2400	44001	100	997R2405	44006	10k
997-2401	44002	300	997-2406	44007	5000
997R2402	44003	1000	997-2407	44008	30k
997R2403	44004	2251	997-2410	44011	100k
997R2404	44005	3000	997-2415	44015	1 meg

Each: 1-9 ... 8.00 10-29 ... 6.40 30-99 ... 5.09 100-Up ... 4.33

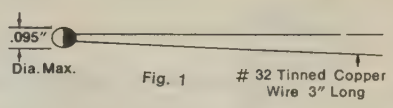


Fig. 1

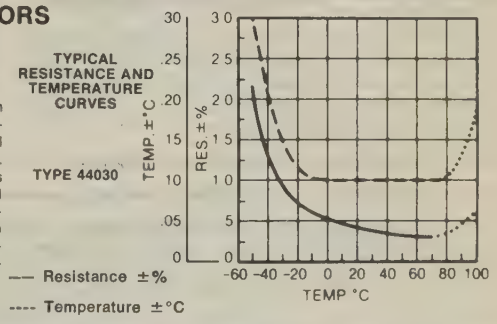
½% (0.1°C) INTERCHANGEABLE THERMISTORS

- ½% Interchangeability
- Permits Multiple Monitoring From a Single Circuit
- Eliminates Circuit Recalibration When Switching Transducers
- Economical
- Chemically Stable, Long Life

These precision thermistors offer ½% interchangeability, so each thermistor in a given value will match standard temperature-resistance curves and each other with maximum error of only ±0.1°C at 25°C. Permits multiple monitoring from a single circuit, and direct dialing of temperature set points.

Stock No.	Mfr's Type	Base Res. Ohms@25°C	EACH 1-9	EACH 10-29	EACH 30-Up
997-2440	44030	3000	12.61	10.30	8.95
997-2441	44031	10K	12.61	10.30	8.95
997-2443	44033	2252	12.61	10.30	8.95

Eliminates the need to recalibrate circuits when switching transducers. Time constant for thermistors suspended by their leads in well stirred oil is 1 second max.; 10 seconds max. in still air. Dissipation constant in well stirred oil is 8mW/°C and 1 mW/°C min. in still air. Finished thermistors are chemically stable and not significantly affected by aging or exposure to strong fields of hard nuclear radiation. Dimensions shown in Figure 1 (above). Epoxy encapsulated; color coded. Wt. ¼ oz.



LINEAR OUTPUT THERMILINEAR® THERMISTOR NETWORKS

Linear networks consist of two thermistors packaged together and used in conjunction with two precision resistors to produce a varying voltage or resistance linear with temperature change. Voltage can be made to correspond directly to temperature, correct even as to sign; thus +376.2 mV equals +37.62°C, etc. These devices are useful in applications requiring accurate linear information. Linearity deviations are as little as 2 parts in 1000 from 0 to 100°C, with sensitivities, of 20 mV/°C or more, 400 times that of an IC thermocouple. Time constant in well stirred oil is 1 second. Accuracy and interchangeability between sensors is ±0.15°C from −30° to +100°C (except type 44211, ±0.4°C from 0 to +85°C and ±0.8°C from 0 to −55°C. A Thermilinear component includes a thermistor composite (Fig. 2) and two resistors of the size shown in Fig. 3 (above).

The thermistor and resistor composites are connected in networks as shown in Figures A and B. One of the basic networks is a voltage divider as in Fig. A. The area within the dotted line represents the thermistor composite. The network for linear resistance versus temperature is shown in Fig. B. Av. shpg. wt. 1 oz.

Following is a description of why these networks produce linear information. The equation for a voltage divider network, with R and R_o in series, is:

$$Eout = Ein \frac{R}{R-R_o}$$

where Eout is the voltage drop across R. If R is a thermistor, the Eout is plotted versus temperature, and the total curve will be essentially non-linear and of a general "S" shape with linear or nearly linear portions near the ends and in the center. If R is modified by the addition of other thermistors and resistors, linearity of the center section of the curve can be extended to cover a wide temperature range. This section follows the general equation for a straight line, Y = mx+b, or in terms of a Thermilinear component:

For Voltage Mode
Eout = ±MT+b
where: M is slope in volts/°T
T is temperature in °C or °F
b is value of Eout when T = 0°

For Resistance Mode
Rt = MT+b
where: M is slope in ohms/°T
T is temperature in °C or °F
b is value of R in ohms when T = 0°

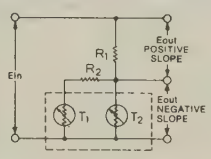


Figure A

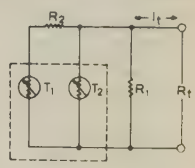
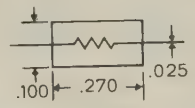


Figure B

Linear Voltage vs. Temperature



Stock No.	Mfr's Type	Range	Linearity Deviation	Eo Positive Slope	Resistance Mode, RT=	EACH 1-9	EACH 10-29	EACH 30-99	EACH 100-Up
997R3000	44201	0° to +100°C	±0.216°C	Eout = (+0.0053483 Ein) T+0.13493 Ein	(−17.115)T+2768.23	14.53	11.75	10.75	10.25
997-3001	44202	−5° to +45°C	±0.065°C	Eout = (+0.0056846 Ein) T+0.194142 Ein	(−32.402)T+4593.39	14.53	11.75	10.75	10.25
997R3002	44203	−30° to +50°C	±0.16°C	Eout = (+0.0067966 Ein) T+0.34893 Ein	(−127.096)T+12175	14.53	11.75	10.75	10.25
997-3003	44204	+30° to +100°F	±0.055°F	Eout = (+0.0031289 Ein) T+0.09232 Ein	(−17.834)T+5173.8	14.53	11.75	10.75	10.25
997-3010	44211	−55° to +85°C	±1.1°C	Eout = (+0.005033 Ein) T+034407 Ein	(−17.74)T+2312	14.53	11.75	10.75	10.25
997-2417	44018	−30°C to +100°C		Replacement for types 44201, 44202, 44203, 44204		10.10	8.25	7.55	7.00
997-2418	44019	−55°C to +85°C		Replacement for type 44211		10.10	8.25	7.55	7.00

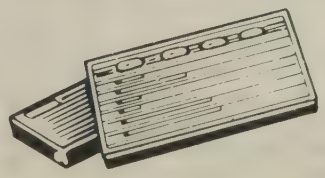
EXPERIMENTER'S THERMISTOR PROBE

MODEL K600A. Thermistor mounted on card, with instructions and schematic for use as a remote temperature indicator, liquid level-control or time-delay relay. Rated 135k at 25°C; 1 mW/°C dissipation constant, 25 seconds; still-air time constant 0.3 second in rapidly stirred water. Shpg. wt. 2 oz.
791-0714 ..... Each 1.53

ENGINEER'S THERMISTOR KITS

MODEL G-200 STANDARD KIT. Ideal for high school, college or university labs; R&D labs; circuit design; experimental electrical and electronic applications. Contains 12 different thermistors (2 glass probes, 3 beads, 2 discs, 3 rods, 2 washers). Each thermistor is packed with specification sheets showing complete characteristics. Shpg. wt. 1 lb.
791R0449 ..... Each 19.95

ECONOMY THERMISTOR KITS



MODEL G-701 ECONOMY KIT. 10 glass beads and probes, manual and computer. Shpg. wt. 1 lb.
791-0453 ..... Each 12.46

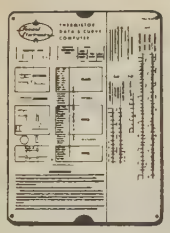
UNI-CURVE THERMISTOR KIT

- Complete With Data Listings

MODEL G-500. Has 6 standard R-T curve-matched interchangeable thermistors (3k, 5k, 10k, 30k, 50k, 100k). With data sheets, full specifications and dissipation constant plus time constant listings. Wt. 1 lb.
791-0451 ..... Each 19.95

Thermistors

THERMISTOR ENGINEERING PACKAGE



- Reduces Lengthy Computations
- Gives Resistance Reading

THERMISTOR "COMPUTER"

A handy 5 x 8″ "Computer" reduces lengthy computations to a single, slide-rule setting. Gives resistance readings directly opposite all temperature points of thermistor curves. Helps in selection of configuration.

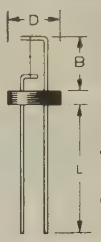
THERMISTOR MANUAL

The thermistor manual is a step by step primer that is informative and provides assistance from basic definition and characteristics to final selection for specific applications. This manual explains all thermistors functions. Includes reference EMC-6 for R-T curve Data. Shpg. wt. 4 oz.

791R0450 Package—Computer and Manual **1.75**

MATCHED THERMISTOR ASSEMBLIES

- **Each Bead Is Mounted To A Special Hermetically-Sealed Stem.**



Matched pair for use in gas chromotographic equipment and other thermal conductivity gas analysic instruments. Each bead is mounted to a special hermetically-sealed stem. 8 oz.

TYPE G112. R_0 at 25°C, 8000 ohms ±20%; R_0 at 0°C (approx.), 23,200 ohms; at 50°C (approx.), 3,200 ohms. Power, air, 45 mW; helium, 140 mW.

Stock No.	Mfr's Type	Description	EACH 1-9	EACH 10-Up
791-0446	G112	Two GC38L1 units	31.53	26.97

Precision thermal resistors with high negative coefficient of resistance. Resistance drops as temp. increases. Use tiny, fast-response glass-coated beads where temp. goes to 320°C. Rugged medium-small glass probes mount easily and are useful in liquid media. Use discs for medium power and time response applications; rods and washers where high power dissipation is required. Temp. to +150°C. Wt. 2 oz.

FIG. B—GLASS PROBES

Stock No.	Mfr's Type	R° at 25°C Ohms	% Tol.	Ratio	R-T Curve	D.C. (Mw/°C)	T.C. (Sec)	Lead Dia. (In.)	Lead Mat'l	L (In.)	D (In.)	B (In.)	Tinned	EACH 1-9	EACH 10-24	EACH 25-99	EACH 100-Up
791-0425	GB31P2	1K	20	7.04	11	1.7	22	.012	Dumet	2	.100	½	x	3.30	2.64	2.20	1.89
791-0431	GB32P2	2K	20	7.04	11	1.7	22	.012	Dumet	2	.100	½	x	3.30	2.64	2.20	1.89
791R0432	GB32P8	2K	20	7.04	11	1.7	22	.012	Dumet	2	.100	½	x	3.88	3.10	2.58	2.21
791-0433	GB34P2	4K	20	7.04	11	1.7	22	.012	Dumet	2	.100	½	x	3.30	2.64	2.20	1.89
791-0437	GA41P2	10K	20	7.59	12	1.7	22	.012	Dumet	2	.100	½	x	3.95	3.16	2.63	2.58
791-0404	GA45P2	50K	20	9.53	14	1.7	22	.012	Dumet	2	.100	½	x	3.63	2.90	2.42	2.07
791R0410	GA51P8	100K	15	10.3	15	1.7	22	.012	Dumet	2	.100	½	x	3.88	3.10	2.58	2.21
791-0415	GA52P2	200K	20	10.3	15	1.7	22	.012	Dumet	2	.100	½	x	3.30	2.64	2.20	1.89
791-0422	GA61P2	1 meg.	20	13.12	5	1.7	22	.012	Dumet	2	.100	½	x	4.63	3.70	3.08	2.64

FIG. A—GLASS COATED BEADS

791R0427	GB32J2	2K	20	7.04	11	.4	4	.004	PT-IR	⅜	.043			3.23	2.58	2.15	1.84
791-0435	GB35J1	5K	20	7.04	11	.4	4	.004	PT-IR	⅜	.043			5.35	4.28	3.56	3.08
791-0436	GB41J1	10K	20	7.59	12	.4	4	.004	PT-IR	⅜	.043			5.35	4.28	3.56	3.08
791-0401	GA42J16	15K	20	9.1	13	.4	4	.004	PT-IR	⅜	.043			5.35	4.28	3.56	3.08
791-0403	GA45J1	50K	20	9.53	14	.4	4	.004	PT-IR	⅜	.043			4.40	3.52	2.93	2.51
791-0408	GA51J1	100K	15	10.3	15	.4	4	.004	PT-IR	⅜	.043			3.23	2.58	2.15	1.84
791-0412	GA52J2	200K	20	10.3	15	.4	4	.004	PT-IR	⅜	.043			4.45	3.56	2.96	2.54
791-0421	GA61J1	1 meg.	20	13.12	5	.4	4	.004	PT-IR	⅜	.043			6.23	4.98	4.15	3.58

FIG. D—RODS

791-1200	GA51J1	100K	10	9.1	16	2.5	20	.016	Copper	1⅜	.053	½	x	1.99	1.58	1.32	1.13

FIG. F—WASHERS

Stock No.	Mfr's Type	R° at 25°C Ohms	% Tol.	Ratio	R-T Curve	D (In.)	H (In.)	Thk. (In.)	EACH 1-9	EACH 10-24	EACH 25-99	EACH 100-Up
791-1600	WA21W1	100	10	9.1	16	.77	.281	.048	1.98	1.58	1.32	1.13

FIG. C AND E—DISCS

Stock No.	Mfr's Type	Fig.	R° at 25°C	% Tol.	Ratio	R-T Curve	D.C. (Mw/°C)	T.C. (Sec.)	Lead Dia. (In.)	Lead Mat'l	L (In.)	D (In.)	Thk. (In.)	Tinned	EACH 1-9	EACH 10-24	EACH 25-99	EACH 100-Up
791-0302	FB31J1	C.1	1K	10	6.95	10	1.0	3	.010	Copper	1½	.050	.017	x	2.28	1.82	1.52	1.30
791-0300	FA41J1	C.1	10K	10	9.1	16	1.0	3.5	.010	Copper	1½	.050	.024	x	2.28	1.82	1.52	1.30
791-0304	FP52J1	C.1	200K	10	11.60	2	1.5	4.5	.010	Copper	1½	.050	.043	x	2.28	1.82	1.52	1.30
791-0604	JB25J1	C	500	10	6.95	10	3	10	.013	Copper	1	.1	.035	x	1.58	1.26	1.05	.90
791-0605	JB31J1	C	1K	10	6.95	10	4	10	.013	Copper	1	.1	.069	x	1.58	1.26	1.05	.90
791-0600	JA33J1	C	3K	10	9.1	16	3	10	.013	Copper	1	.1	.029	x	1.58	1.26	1.05	.90
791-0601	JA35J1	C	5K	10	9.1	16	4	10	.013	Copper	1	.1	.048	x	1.58	1.26	1.05	.90
791-0603	JA41J1	C	10K	10	9.1	16	4	10	.013	Copper	1	.1	.095	x	1.58	1.26	1.05	.90
791-0608	JP43J2	C	25K	10	11.60	2	3	10	.013	Copper	1	.1	.022	x	1.58	1.26	1.05	.90
791-0610	JP51J1	C	100K	10	11.60	2	4	15	.013	Copper	1	.1	.087	x	1.58	1.26	1.05	.90
791R0703	KB21J1	C	100	10	6.95	10	4	16	.020	Copper	1½	.2	.028	x	1.35	1.08	.90	.77
791-0704	KB22J1	C	200	10	6.95	10	5	18	.020	Copper	1½	.2	.055	x	1.35	1.08	.90	.77
791-0706	KB25J1	C	500	10	6.95	10	6	25	.020	Copper	1½	.2	.138	x	1.35	1.08	.90	.77
791-0700	KA31L1	E	1K	10	9.1	16	6	20	.020	Copper	1½	.2	.038	x	1.35	1.08	.90	.77
791-0701	KA33J1	C	1K	10	9.1	16	6	20	.020	Copper	1½	.2	.038	x	1.35	1.08	.90	.77
791-0702	KA35J3	C	5K	10	9.1	16	7	35	.020	Copper	1½	.2	.190	x	1.35	1.08	.90	.77
791-0712	KP41J2	C	10K	10	11.60	2	4	20	.020	Copper	1½	.2	.035	x	1.35	1.08	.90	.77
791-0804	LB15J1	C	15	10	6.95	10	7	40	.025	Copper	3¾	.4	.055	x	1.35	1.08	.90	.77
791-0801	LA25L2	E	500	10	9.1	16	8	60	.025	Copper	3¾	.4	.076	x	1.35	1.08	.90	.77
791-0802	LA31J1	C	1K	10	9.1	16	10	70	.025	Copper	3¾	.4	.152	x	1.35	1.08	.90	.77
791-1002	NB11J1	C	10	10	6.95	10	20	90	.032	Copper	3¾	.77	.041	x	1.35	1.08	.90	.77

FIG. G—PELLETS

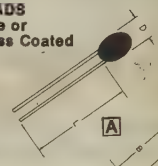
791-1103	PB32D1	G	2K	10	6.95	10	2	8	.015	Dumet	1⅛	.070	1.50	x	2.83	2.26	1.88	1.61
791-1102	PA51D1	G	100K	10	9.1	16	2	8	.015	Dumet	1⅛	.070	1.50	x	2.83	2.26	1.88	1.61

FIG. H—UNI-CURVE INTERCHANGEABLE THERMISTORS

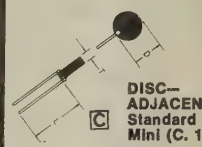
Tinned copper alloy leads, .008″ diameter.

Stock No.	Mfr's Type	R° at 25°C	Temp. Tol. at Range (±°C)	Temp. Range °C	Ratio	R-T Curve	D.C. (Mw/°C)	T.C. (Sec)	L (In.)	D (In.)	B (In.)	EACH 1-9	EACH 10-24	EACH 25-99	EACH 100-up
791-1500	UUA33J1	3K	±0.2	0 to +70			1	10	3	.095		7.23	5.78	4.82	4.13
791-1502	UUA41J1	10K	±0.2	0 to +70			1	10	3	.095		7.23	5.78	4.82	4.13
791-1503	UUT43J1	30K	±0.2	0 to +70			1	10	3	.095		7.23	5.78	4.82	4.13

BEADS
Bare or Glass Coated



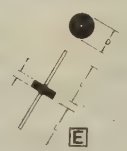
GLASS PROBE
Standard, Micro Mini, Sub-Mini, Mini



DISC—ADJACENT LEADS
Standard and Mini (C. 1)

ROD

DISC—AXIAL LEADS



WASHER

DIODE PELLET

UNI-CURVE

Alec Electron

Write or Call for Larger Quantity Prices on Thermistors

Test Clips and Leads for Miniature Circuits

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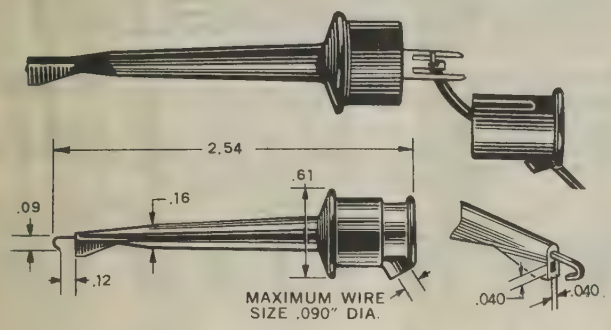


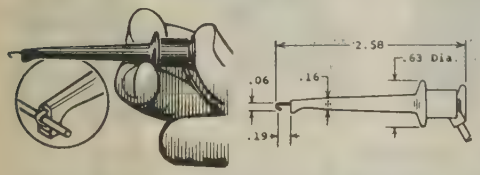
DO-IT-YOURSELF "GRABBER"

• Plunger Type Action Between Thumb and Two Fingers • Comfortable Finger Grip Operation • Positive Connection That Won't Pop Off • No Sharp Teeth to Damage or Nick Wires • Simplified Assembly Procedure • High Temperature Material • Accepts Wire Up to .090" Diameter

This Do-It-Yourself Grabber provides the user with the ability to build his own leads. The unit is completely field-serviceable and features a simplified assembly procedure. The gold plated contact hook can be connected rapidly to component leads, and the specially designed tip slides down over .025 square wire wrap pins. The entire unit is molded of Lexan® Polycarbonate thermoplastic for strength and less chance of melting when soldering lead. Simplified assembly procedure for attaching lead: pull off thumb cap, thread wire through thumb cap, insert end through hole on contact, and solder.

Stock No.	Mfr's Type	Color	EACH 1-9	10-24	25-49	50-Up
885-0951	3925	Red	1.50	1.20	.77	.72
885-0952	3925	Black	1.50	1.20	.77	.72

MINIATURE TEST CLIPS WITH "THE GRABBER"



• Quick and Easy Plunger-Type Action • Gold-Plated Beryllim Copper Conductor • Completely Insulated Test Clip • Molded Nylon Insulation on Clip, Wire

Miniature test clips for making rapid and reliable tests. Nylon insulation molded directly onto clip and wire provide a strong, reliable integral unit. Operating temp.: –25°C to +105°C. Av. shpg. wt. 2 oz.

MINI-TEST CLIP ONE END ONLY

Miniature test clip with wire connected one end only. No connector on opposite end allows connection of various components. Wire is 20 AWG, stranded. Extra flexible polyvinyl insulation. .087" O.D.

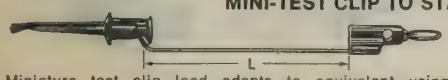
Stock No.	Mfr's Type	Color	L. In.	EACH 1-9	10-24	25-49	50-Up
885R0900	3780-12	Black	12	1.70	1.00	.90	.85
885R0901	3780-12	Red	12	1.70	1.00	.90	.85
885R0902	3780-24	Black	24	1.70	1.00	.90	.85
885R0903	3780-24	Red	24	1.70	1.00	.90	.85
885R0904	3780-48	Black	48	1.77	1.05	.95	.89
885R0905	3780-48	Red	48	1.77	1.05	.95	.89

MINI-TEST CLIP BOTH ENDS

Miniature test clip on both ends for rapid interconnection of test points. Connects quickly to test points.

885R0910	3781-12	Black	12	2.82	1.65	1.49	1.40
885R0911	3781-12	Red	12	2.82	1.65	1.49	1.40
885R0912	3781-24	Black	24	2.82	1.65	1.49	1.40
885R0913	3781-24	Red	24	2.82	1.65	1.49	1.40
885R0914	3781-48	Black	48	2.97	1.65	1.53	1.45
885R0915	3781-48	Red	48	2.97	1.65	1.53	1.45

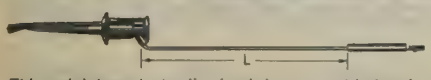
MINI-TEST CLIP TO STACKING BANANA PLUG



Miniature test clip lead adapts to equivalent using banana jacks. Banana plug has molded thermoplastic cover.

885-0920	3782-12	Black	12	2.97	1.65	1.49	1.40
885-0921	3782-12	Red	12	2.97	1.65	1.49	1.40
885R0922	3782-24	Black	24	2.97	1.65	1.49	1.40
885R0923	3782-24	Red	24	2.97	1.65	1.49	1.40
885R0924	3782-48	Black	48	3.02	1.70	1.53	1.45
885R0925	3782-48	Red	48	3.02	1.70	1.53	1.45

MINI-TEST CLIP TO .025 SQUARE PIN RECEPTACLE

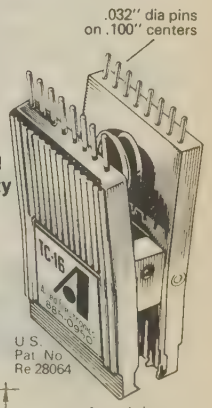


This miniature test clip lead has a gold-plated .025 square pin receptacle which slides over .025 square pins.

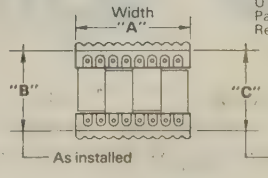
885-0930	3783-12	Black	12	4.05	3.24	2.59	2.07
885-0931	3783-12	Red	12	4.05	3.24	2.59	2.07
885-0932	3783-24	Black	24	4.05	3.24	2.59	2.07
885-0933	3783-24	Red	24	4.05	3.24	2.59	2.07
885-0934	3783-48	Black	48	4.23	3.38	2.70	2.16
885-0936	3783-48	Red	48	4.23	3.38	2.70	2.16

IC TEST CLIPS

Provide full access to Integrated Circuit DIP leads.



• Solve Probe Attachment Problems • Simplify Prototype and Production Testing, Field Service Work, and Quality Control • Remove DIPs Damage-Free • Available In 3 Sizes — To Accommodate 14-Pin, 16-Pin and 24-Pin DIPs



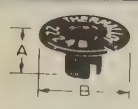
The unique design of these Test Clips assures positive, non-shorting electrical connection and positive mechanical clamping to dual-in-line packages. Gold-plated phosphor-bronze spring contacts are designed for wiping action. The "contact comb" separating the spring contacts provides positive positioning to prevent accidental shorting of adjacent leads. Oscilloscope probes can hang free on the longer terminal wires in the top row of the Test Clip and not interfere with the terminals in the bottom row. The 14-pin and 16-pin models are designed for compatibility with DIP packages having a row-to-row dimension of 0.3 inches, while the 24-pin model is designed for compatibility with DIP packages having row-to-row dimensions of 0.6 or 0.7 inches. On all models, the 0.32-inch dia. pins are on 0.10-inch centers. *Write or phone Allied for higher quantity prices* Avg. wt 3 oz

Stock No.	Mfr's Type	Dimensions (in.) "A"	"B"	"C"	EACH 1-9	50-99	100 Up
617-0014	TC-14	0.76	0.45	0.51	5.25	4.75	4.45
617R0016	TC-16	0.89	0.45	0.51	5.75	5.20	4.90
617-0024	TC-24	1.29	0.75	0.81	13.85	12.50	11.75

For Larger Quantity Discounts Contact Allied Electronics

Heat Sinks and Coolers

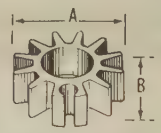
Alec Electron



2224 Series

1115 Series

1116



2230 Series

SERIES 2224 LOW-COST PRESS-ON HEAT SINKS

Easily installed heat sinks don't waste precious space on printed circuit boards. Circular convection-cooling flanges extend from top of heat sink, do not take up additional board space. Economical and versatile enough for almost all PC applications. Average shpg. wt. 1 oz.

Stock No.	Mfr's Type*	No. of Fins	Fits Case	Size, In. Dim. "A"	Size, In. Dim. "B"	EACH 1-9	10-24	25-99	100-Up
957-2090	2224B	1	TO-18	.50	.235	.35	.28	.22	.18
957-2110	2225B	2	TO-5	.75	.40	.48	.38	.29	.24
957-2120	2225C	2	TO-5	.75	.40	.46	.36	.27	.22
957-2130	2226C	1	TO-5	.75	.22	.43	.34	.26	.21
957-2150	2227B	2	TO-5	1.25	.40	1.03	.82	.63	.52
957-2170	2228B	3	TO-5	.88	.53	.73	.58	.44	.36
957-2180	2228C	3	TO-5	.88	.53	.65	.52	.41	.34

SERIES 1115 COMBINATION RETAINERS/HEAT SINKS

Retain devices and dissipate heat. Type 1115 is lead mounted. Type 1116 is tapped for a 4-40 screw. Average shpg. wt. 1 oz.

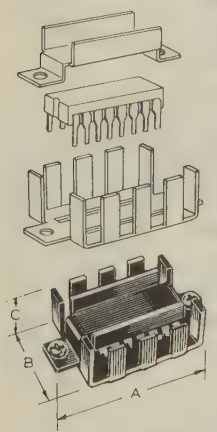
Stock No.	Equiv. Thermaloy Type*	Fits Case	Size, Inches Dim. "A"	Size, Inches Dim. "B"	EACH 1-9	10-24	25-99	100-Up
957-1740	1115B	TO-5	.40	.375	.30	.24	.19	.15
957-1750	1116A	TO-5	.312	.351	.65	.52	.41	.34
957-1760	1116B	TO-5	.312	.351	.48	.38	.29	.24

SERIES 2230-5 DIP HEAT SINKS

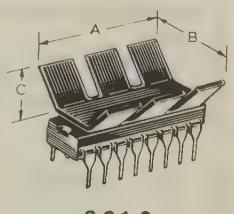
Unique screw boss for mounting ease. Anodized finish. Type 2230-5 is an aluminum press-on heat sink. Av. shpg. wt. 1 oz.

Stock No.	Mfr's Type*	Fits Case	Size, Inches Dim. "A"	Size, Inches Dim. "B"	Size, Inches Dim. "C"	EACH 1-9	10-24	25-99	100-Up
957-2190	2230B-5	TO-5	.75	.25	.....	.38	.30	.24	.20
957-2200	2230C-5	TO-5	.75	.25	.....	.33	.26	.20	.17

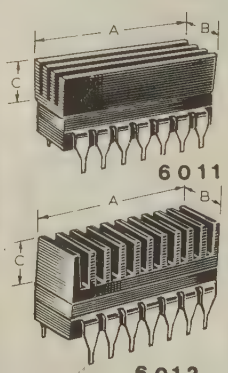
NEW!



6607



6010



6011

6012

SERIES 6007 DIP HEAT SINK

Two-piece design provides positive retention and improves thermal performance. Hard anodized insulation finish. Shpg. wt. 1 oz.

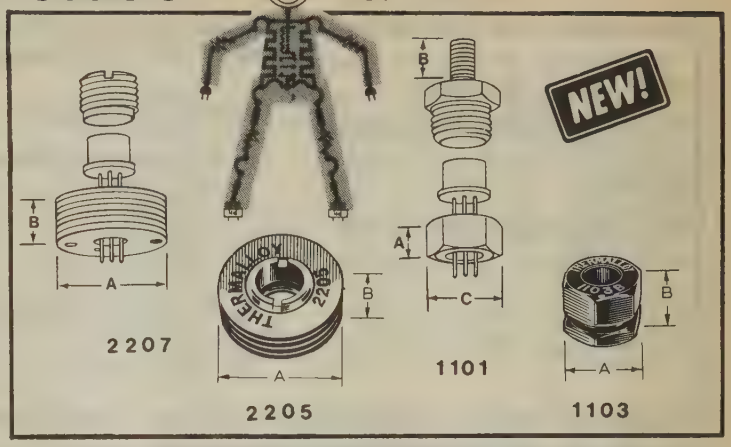
Stock No.	Mfr's Type*	Fits Case	Size, Inches "A"	Size, Inches "B"	Size, Inches "C"	EACH 1-9	10-24	25-99	100-Up
957-2662	6007A	DIP	.24	1.24	.57	1.38	1.08	.83	.69

DIP HEAT SINKS—14 OR 16 PINS

The 6010, 6011 and 6012 series are 1-piece heat sinks for 14 or 16 pin dual in-line integrated circuit packages. The devices are bonded to the top surface of the package with Thermabond epoxy or equivalent for minimum interface loss. No additional board space is needed and heat sinks may be added after assembly.

Stock No.	Mfr's Type*	Fits Case	Size, Inches "A"	Size, Inches "B"	Size, Inches "C"	EACH 1-9	10-24	25-99	100-Up
957-2664	6010B	DIP	.75	.604	.178	.33	.26	.22	.17
957-2666	6011B	DIP	.75	.25	.19	.53	.42	.35	.27
957-2668	6012B	DIP	.75	.25	.19	.53	.42	.35	.27

***NOTE:** Finish is denoted by suffix letter: **A**, hard anodize per MIL-F-14072, 400 volts insulation; **B**, black anodize per MIL-A-8625 Type II; **C**, gold chromate finish per MIL-C-5541.



HIGH PERFORMANCE CONVECTION COOLER TO-5 CASE

Type 2207/PR11 is a 2-piece heat sink for TO-5 transistors and the most efficient heat sink available for its size. Slotted insert clamps weld flange against solid base for maximum heat transfer to integral fins. Lead holes are teflon insulated. Tapped mounting holes provide retention under shock and vibration.

Type 2212-5 is a 2-piece heat sink for TO-5 transistors and can dissipate more power than any other TO-5 heat sink on the market. Same design features as the 2207/PR11 described above but with more mass and more exposed surface area.

Type 2205 is a 2-piece heat sink for TO-5 transistors. This is the same as the 2207/PR11 described above except a single through-hole is utilized instead of individual lead holes. Same performance with glass based transistor but with lower cost.

Stock No.	Mfr's Type*	Fits Case	Size, Inches Dim. "A"	Size, Inches Dim. "B"	EACH 1-9	10-24	25-99	100-Up
957-2020	2207PR11B	TO-5	.75	.30	2.48	2.00	1.53	1.26
957-2060	2212B-5	TO-5	1.06	.38	2.48	2.00	1.53	1.26
957-2000	2205B	TO-5	.82	.34	1.80	1.44	1.11	.91

SERIES 2211 AND 2215 CONVECTION COOLERS

Highly versatile, low cost circuit board heat sinks with single thru-hole and two mounting holes (2215 tapped for 2-56 screws). The two-hole mounting provides shock protection. Fit case TO-5. Shpg. wt. 1 oz.

Stock No.	Mfr's Type*	Size, In. Dim. "A"	Size, In. Dim. "B"	Tapped Mtg. Holes	EACH 1-9	10-24	25-99	100-Up
957-2040	2211B	.63	.31	No	.73	.58	.44	.36
957-2080	2215B	.75	.38	Yes	1.80	1.44	1.11	.92

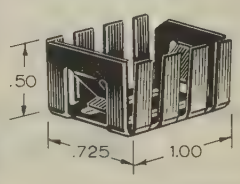
1101-1103 SERIES CONDUCTION COOLER/RETAINER-TO-5 CASE

The 1101, 1103 is a 2-piece heat sink/retainer/thermal link for TO-5 transistors. Top and base grip the weld flange for maximum heat transfer to circuit board or other external tension under shock and vibration.

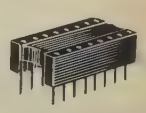
Stock No.	Mfr's Type*	Fits Case	Size, Inches "A"	Size, Inches "B"	Size, Inches "C"	EACH 1-9	10-24	25-99	100-Up
957-1700	1101A	TO-5	.25	.375	.5	1.38	1.11	.85	.70
957-1710	1101A	TO-5	.25	.375	.5	1.10	.89	.68	.56
957-1720	1103A	TO-5	.50	.25	.....	1.38	1.11	.85	.70
957-1730	1103B	TO-5	.50	.25	.....	1.10	.89	.68	.56

NEW!

TYPE 6020 DIP CLIP SINK



- Accepts All 4 Pin Dips
- Designed to JEDEC Type TO-116 Case Style



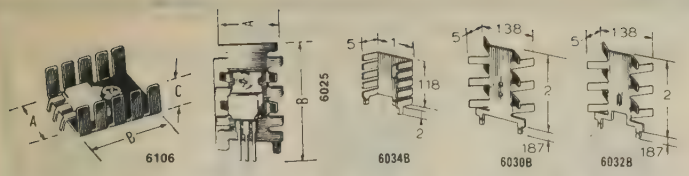
- Eliminates Mounting Hardware and Adhesives
- Reduces Assembly Time and Production Costs

This Type 6020 DIP Clip Sink offers a practical, low-cost approach to effective cooling of DIPS designed to the JEDEC TO-116 case styles. A thermal resistance of 20°C per watt (from device case to ambient air) is obtained by efficiently removing the heat from the underside of the DIP. An advantage of this Clip Sink is the ease of assembly on the production line and its ability to be used with a 14 pin DIP socket. This Clip Sink eliminates the need for mounting hardware and adhesives. The clips on both insides of the Clip Sink securely fasten and position the DIP in place for trouble-free operation.

Stock No.	1-9	10-24	25-99	100-Up
957-2500	.35	.29	.22	.18

Larger Quantity Price Breaks Available on Request

Heat Sinks



SERIES 6106 AND 6107 COOLERS FOR PLASTIC POWER DEVICES

For use with flat plastic power transistors, silicon-controlled rectifiers, Triacs and Quadracs and a wide range of advanced technological equipment. Dissipate up to 8 watts. Available in a wide range of popular configurations. Average shpg. wt. 1 oz.

Stock No.	Mfr's Type	Style	Size, Inches Dim. "A"	Dim. "B"	Dim. "C"	EACH 1-9	10-24	25-99	100-Up
957-2730	6106B	Blank	1.00	1.18	.50	.33	.26	.22	.17
957-2740	6106C	Blank	1.00	1.18	.50	.29	.23	.20	.17
957-2750	6106C-13	2-hole	1.00	1.18	.50	.25	.20	.17	.13
957-2760	6107B	Blank	1.00	.71	.50	.25	.20	.17	.14
957-2770	6107B-14	1-hole	1.00	.71	.50	.30	.24	.20	.15
957-2780	6107C	Blank	1.00	.71	.50	.28	.22	.18	.16
957-2790	6107C-14	1-hole	1.00	.71	.50	.23	.18	.15	.11

SERIES 6025 VERTICAL PLASTIC POWER COOLER

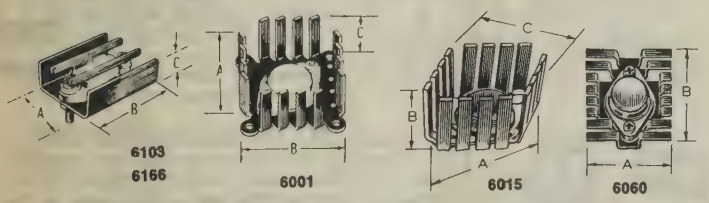
For use with today's compact equipment. Unique standup design permits good performance for plastic power device while taking little board space. Contains feet that add support to soldered leads. Type 6025B fits plastic case style; 6025D fits power case. See *Note below for suffix information.

Stock No.	Mfr's Type*	TR °C	Size, Inches "A"	"B"	EACH 1-9	10-24	25-99	100-Up
957-2670	6025B	24	.87	1.25	.25	.22	.17	.14
957-2671	6025D	34	.87	1.25	.73	.58	.44	.36

PC BOARD MOUNTED HEATSINKS

Vertically mounted for plastic case SCR's, Triacs, Power Transistors. Heat is conducted through the device tab to fins for dissipation in natural forced convection conditions. The 6034 has a cutout for center tab devices and both 6032 and 6034 allow center clearance for wiring. Material is 3003H14 Aluminum. Standard black anodize finish.

Stock No.	Mfr's Type	EACH 1-9	10-24	25-99	100-Up
957-3820	6030B	.43	.34	.28	.21
957-3825	6032B	.48	.38	.32	.24
957-3830	6034B	.45	.36	.30	.22



SERIES 6103 AND 6166 TWO-PIECE HEAT SINKS

Popular for PC board mounting. Heat is transferred from top and bottom of semi-conductor device for maximum transfer. Average shpg. wt. 1 oz.

Stock No.	Mfr's Type*	Fits Case	Size, Inches Dim. "A"	Dim. "B"	Dim. "C"	EACH 1-9	10-24	25-99	100-Up
957-2700	6103B	TO-3	1.25	1.58	.50	.93	.75	.58	.48
957-2720	6103C	TO-3	1.25	1.58	.50	.70	.56	.43	.35
957-2860	6166B	TO-66	.87	1.32	.63	.90	.73	.56	.46
957-2710	6103B base	TO-3	1.25	1.58	.50	.50	.40	.31	.25
957-2870	6166B base	TO-66	.87	1.32	.63	.50	.40	.31	.25

SERIES 6001 HIGH PERFORMANCE COOLERS

All-directional slanted vanes for top efficiency per unit volume occupied. Wt. 1 oz.

Stock No.	Mfr's Type*	Fits Case	Size, Inches Dim. "A"	Dim. "B"	Dim. "C"	EACH 1-9	10-24	25-99	100-Up
957-2600	6001B-2	TO-3	1.81	1.81	.50	1.60	1.28	.99	.81
957-2620	6002B-2	TO-3	1.81	1.81	.75	1.70	1.36	1.05	.87
957-2640	6003B-2	TO-3	1.81	1.81	1.00	1.90	1.52	1.17	.97
957-2650	6004B-2	TO-3	1.81	1.81	1.25	1.95	1.56	1.20	.99

SERIES 6015 SPACE SAVER COOLERS

One-pc. lightweight coolers for PC board applications. Unique diamond shape of the TO-3 package for minimum space. 1 oz.

Stock No.	Mfr's Type*	Fits Case	Size, Inches Dim. "A"	Dim. "B"	Dim. "C"	EACH 1-9	10-24	25-99	100-Up
957-1000	6013B	TO-3	1.895	1.42	.50	.73	.58	.45	.35
957-1005	6014B	TO-3	1.895	1.42	.75	.78	.62	.48	.39
957-1010	6015B	TO-3	1.895	1.42	1.00	.85	.68	.53	.43

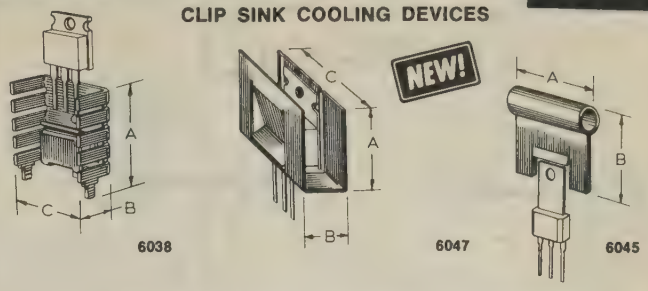
SERIES 6060 LOW PROFILE HEAT SINKS

Use with TO-3 case styles. Height only 0.375" — perfect for PC boards with 0.50" centering between boards. Other components can be mounted under fins. Wt. 1 oz.

Stock No.	Mfr's Type*	Fits Case	Size, Inches Dim. "A"	Dim. "B"	EACH 1-9	10-24	25-99	100-Up
957-1200	6060B	TO-3	2.0	1.70	.50	.40	.31	.25
957-1205	6061B	TO-3	2.0	2.25	.50	.40	.31	.25

***NOTE:** Finish is denoted by suffix letter; **A,** hard anodize per MIL-F-14072, 400 V insul.; **B,** black anodize per MIL-A-8625 Type II; **C,** gold chromate per MIL-C-5541; **D,** nickel plated for soldering lugs.

CLIP SINK COOLING DEVICES



- Lightweight, Low Cost
- No Mounting Hardware Needed
- Requires Minimum Board Space
- For TO-220 Devices

6038 Vertically Mounted Heat Sink for TO-220 devices with an integral clip for device retention is now available. The clip applies force directly to the device case giving uniform pressure over the entire metal tab surface to obtain maximum heat transfer to the sink. Saves assembly time and production costs as no mounting hardware is required. Raised dimples on the mounting surface insure fast, positive device location. All TO-220 devices can be installed from either the top or the bottom of this lightweight sink. The **6045 Plastic Power "U" Clip Sink** is specifically designed for TO-220 device case styles. The TO-220 device can be inserted into the clip sink either from the top or from the bottom. This makes it extremely useful for attaching to TO-220 devices in the field. The **6047 "Slip" Clip Sink** is a low cost, easy-to-use clip sink designed for JEDEC TO-202 and Motorola Case 152 device case styles. The 6047 clip sink is economical and can be quickly attached to the TO-202 or Case 152 plastic packages on assembly lines. The configuration of the 6047 provides for positive retention of the device and for maximum heat transfer from the center mounting tab to the metal heat sink and surrounding air.

Stock No.	Mfr's Type	Fits Case	Size, Inches Dim. "A"	Dim. "B"	Dim. "C"	EACH 1-24	25-49	50-99	100-Up
957-1210	6038B	TO-220	1.18	.5	1.00	.43	.33	.26	.21
957-1215	6045B	TO-220	.75	.35	1.00	.33	.27	.20	.17
957-1220	6047B	TO-202, 152	.80	.85	1.00	.25	.20	.15	.13

NEW!

MOUNTING KITS WITH SOCKETS

MOUNTING KIT NO. 4876 FOR TO-3 CASE

Item	Mfr's Type	Description	Quantity
1	11690	6-20 Screws	2
2	43-03-2	Thermafilm Insulator	1
3	11693	Square Socket	1

957-1270. 1-9.....Ea. .80 10-24.....Ea. .64
25-99.....Ea. .49 100-Up.....Ea. .41

MOUNTING KIT NO. 4875 FOR TO-3 CASE

Item	Mfr's Type	Description	Quantity
1	11690	6-20 Screws	2
2	43-03-2	Thermafilm Insulator	1
3	11692	Diamond Shaped Socket	1

957-1265. 1-9.....Ea. .75 10-24.....Ea. .60
25-99.....Ea. .46 100-Up.....Ea. .38

MOUNTING KIT NO. 4801 FOR TO-3 CASE

Item	Mfr's Type	Description	Qty.	Mil Spec.
1	10612	Screw 6-32x½ Phil Pan Hd. S. Steel	2	MS 51957-30
2	10613	Nut 6-32 S. Steel	2	MS 35649-264
3	10617	Lock Washer No. 6 S. Steel	2	MS 35338-136
4	10621	Flatwasher No. 6 S. Steel	2	MS 15795-805
5	10178	Shoulder Washer, Polphenylene Oxide	2	N/A
6	10179	Solder Lugs, Tinned Brass	1	N/A
7	43-03-2	Thermafilm Insulator	1	Mil P-46112 Type 1

957-1250. 1-9.....Ea. 1.18 10-24.....Ea. .95
25-99.....Ea. .73 100-Up.....Ea. .60

MOUNTING KIT NO. 4810 FOR TO-66 CASE

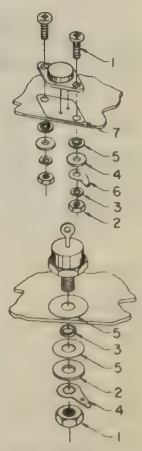
Item	Mfr's Type	Description	Qty.	Mil Spec.
1	10612	Screw 6-32x½ Phil Pan Hd. S. Steel	2	MS 51957-30
2	10613	Nuts 6-32, Stainless Steel	2	MS 35649-264
3	10617	Lock Washers No. 6, S. Steel	2	MS 35338-136
4	10621	Flatwashers No. 6, S. Steel	2	MS 15795-805
5	10178	Shoulder Washer	2	N/A
6	10179	Solder Lugs, Tinned Brass	1	N/A
7	43-66-2	Thermafilm Insulator	1	Mil P-46112 Type 1

957-1255. 1-9.....Ea. 1.18 10-24.....Ea. .95
25-99.....Ea. .73 100-Up.....Ea. .60

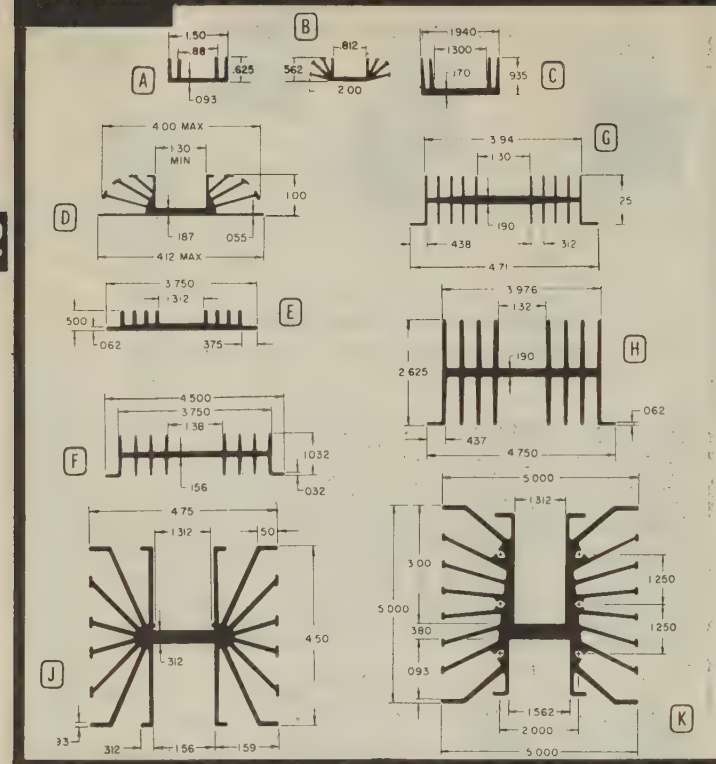
MOUNTING KIT NO. 4860 FOR DO-4 CASE

Item	Mfr's Type	Description	Qty.	Mil Spec.
1	10614	Nut 10-32, Stainless Steel	1	MS 35650-304
2	10622	Flatwasher, Stainless Steel	1	AN 960C-10L
3	110	Bushing, Teflon	1	N/A
4	10626	Locking Term., Stainless Steel	1	MS 77066-4
5	43-02-10	Thermafilm Insulator	2	Mil P-46112 Type 1

957-1260. 1-9.....Ea. .78 10-24.....Ea. .62
25-99.....Ea. .48 100-Up.....Ea. .39



Heat Sinks, Insulators, Pads and Adhesives



HEAT SINK EXTRUSIONS

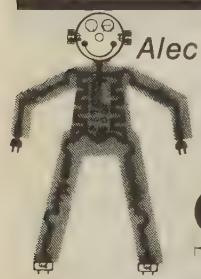
High quality extrusions in 3-foot lengths. Ideal for building prototype equipment or making special application heat sinks.

Stock No.	Mfr's Type	Fig.	Ship. Wt.	EACH 3-FT. LENGTH 1-9	10-24	25-Up
957-2800	6111	A	2 lbs.	5.88	4.62	3.85
957-2830	6141	E	3 lbs.	12.08	9.66	8.05
957R2880	6169	D	4 lbs.	14.55	11.64	9.70
957-2900	6176	C	3 lbs.	9.68	7.74	6.45
957-2930	6401	F	3 lbs.	13.38	11.15	9.56
957R2960	6421	H	8 lbs.	24.66	20.55	17.57
957R3060	6500	G	4 lbs.	12.78	10.65	9.13

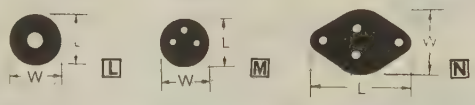
EXTRUDED POWER HEAT SINKS

Popular heat sinks for use with common power transistors, diodes and silicon-controlled rectifiers in commercial, industrial or military applications. Excellent wherever space is at a premium. Cover large surface area to give low thermal resistance and more effective cooling. Flanges have notches for mounting. Black anodized finish. Av. shpg. wt. 4 oz.

Stock No.	Mfr's Type	Fig.	Fits Case Style	Lgth. In.	Wakefield Equiv.	EACH 1-9	10-24	25-99	100-Up
957-2810	6111B	A	Blank	1.5	.....	.80	.64	.49	.41
957-2820	6111B-66	A	TO-66	1.5	.....	1.13	.90	.70	.57
957-2910	6176B	B	Blank	3.0	.....	1.48	1.19	.92	.76
957-2920	6176B-2	B	TO-3	3.0	.....	1.90	1.52	1.17	.97
957-2840	6141B	E	Blank	3.0	.....	1.90	1.52	1.17	.97
957-2850	6141B-2	E	TO-3	3.0	.....	2.20	1.76	1.36	1.12
957-2890	6169B	D	Blank	3.0	614K	2.13	1.69	1.31	1.08
957-3070	6500B	G	Blank	3.0	.....	2.03	1.63	1.26	1.04
957R3080	6500B-2	G	TO-3	3.0	.....	2.23	1.78	1.38	1.13
957-3120	6601B	B	Blank	1.5	601K	1.15	.92	.71	.59
957-2940	6401B	F	Blank	1.5	401K	1.98	1.58	1.22	1.01
957-2950	6403B	F	Blank	3.0	403K	2.28	1.83	1.41	1.16
957R2970	6421B	H	Blank	3.0	421K	3.38	2.71	2.09	1.72
957-2990	6423B	H	Blank	5.5	423K	5.65	4.51	3.49	2.87
957R2980	6421B-2	H	TO-3	3.0	421A	3.55	2.84	2.19	1.81
957-3000	6423B-2	H	TO-3	5.5	423A	6.08	4.86	3.76	3.09
957-3020	6441B	J	Blank	5.5	441K	9.33	7.46	5.77	4.75
957-3140	6660B	K	Blank	6.0	486K	16.48	13.19	9.41	8.55



Alec Electron Says – He Who Depends on Allied Is a Wise Electronics Buff



BERYLLIUM OXIDE HEAT SINKS AND INSULATORS

High-purity beryllium oxide heat sinks conduct heat better than aluminum, yet insulate better than porcelain and have low capacitance.

Stock No.	Mfr's Type	Fig.	For Case Style	Rated Volts	Size in Inches L	W	H	EACH 1-9	10-24	25-99	100-Up
957-2310	4005	M	TO-5	700	.36	.36	.03	.70	.56	.43	.35
957-2300	4003	N	TO-3	800	1.56	1.05	.06	2.53	2.04	1.56	1.29
957-1120	B-800-320-62	L	¼" Stud	800	.80	.80	.06	1.88	1.51	1.16	.95

THERMALFILM I SEMICONDUCTOR INSULATORS

Replaces mica washers. Homogeneous film will not chip, fracture, peel or break. Dielectric strength, 7000 volts/mil; −260° to +400°C. **Pkg. of 100.**

Stock No.	Mfr's Type	Fig.	For Case Style	Size in Inches L	W	H	PER PKG./100 1-9	10-24	25-Up
957R1530	43-03-3	N	TO-3	1.65	1.06	.002	8.90	5.74	4.45
957-1570	43-66-1	N	TO-66	1.31	.76	.002	7.20	4.68	3.60
957-1500	43-02-10	L	10-32 Stud	.562	.562	.002	6.25	4.10	3.15
957-1510	43-02-25	L	¼" Stud	.812	.812	.002	5.50	3.68	2.80

THERMAL JOINT COMPOUND

An enriched silicone grease material with high thermal conductivity. Removes air gap insulation between semiconductor case and heat sink.

Stock No.	Type No.	Description	EACH 1-4	5-9	10-Up
957R1600	249	1-oz. Tube	2.95	2.36	1.57
957R1610	250	2-oz. Jar	4.05	3.24	2.01
957-1620	251	1-lb. Can	14.15	11.32	7.55

INSUL-COTE THERMAL COATED TAPE

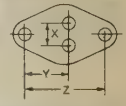
This amazing product consists of an insulator tape precoated with thermal grease, neatly packaged and individually heat sealed for easy, low-cost installation. Simply pull tabs on package to open and apply. Tape is 2¾" wide and has uniform coating thickness that provides for maximum heat transfer.

Stock No.	Mfr's Type	EACH 1-9	10-24	25-99	100-Up
957-1505	43-02-10AP	.50	.40	.30	.25
957-1515	43-02-25AP	.50	.40	.30	.25
957-1535	43-03-3AP	.58	.48	.38	.30
957-1575	43-66-1AP	.58	.48	.38	.30

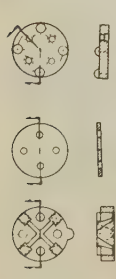
MICA INSULATING WAFERS

6285, 6286

For TO-3 and TO-66 case styles. Provides a lower thermal resistance, when installed between the semiconductor and the chassis or heat dissipator. **Available in Package of 100 Only.**



Stock No.	Mfr's Type	For Case	Dimensions X	Y	Z	PER PKG. OF 100 1-9	10-24	25-Up
920R6285	6285	TO-3	.430"	.665"	1.187"	6.75	5.40	4.50
920-6286	6286	TO-66	.200"	.580"	.960"	6.75	5.40	4.50



MOUNTING PADS, LEAD CONVERSION PADS AND IC PADS

Top-quality nylon pads for best operation and easiest repair of printed circuit boards. Aid in cooling; prevent short-circuiting. Made of nylon per MIL-M-20593A. **Sold only in packages of 100.**

Stock No.	Mfr's Type	Fig.	For Case Style	No. of Leads	Size in Inches O.D.xT	PER PKG./100 1-4	5-9	10-Up
957-3650	7717-79N	P	TO-5	3	.355x.038	12.32	9.86	8.21
957-3520	7717-4N	P	TO-5	3 or 4	.375x.075	12.32	9.86	8.21
957-3590	7717-19N	R	TO-5	8	.500x.275	17.63	15.10	13.22
957-3530	7717-5N	S	TO-5	3 or 4	.350x.125	12.32	9.86	8.21

THERMALBOND—THERMALLY CONDUCTIVE EPOXY ADHESIVE

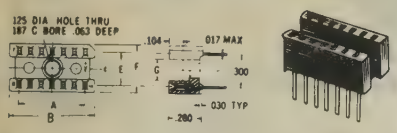
- **Gives Exceptional Adhesion to Copper, Aluminum, Steel, Glass, Ceramics, Most Plastics**
- **Bonds Equally Well to Porous or Non-Porous Materials**
- **Suitable for Cryogenic Applications**

Thermalbond is thermally conductive, has high "stick" strength. Bonds to most metals and plastics. Its coefficient of thermal expansion is very compatible with aluminum, copper, and brass making it well suited for thermally bonding semiconductors and other components to chassis or heat sinks. Has good electrical insulating qualities.

Stock No.	Mfr's Type	Description	EACH 1-4	5-9	10-Up
957-0376	4952	200 gms. resin	12.28	9.82	8.18
957-0377	4951	100 gms. resin	11.48	9.18	7.65

Integrated Circuit and Transistor Sockets

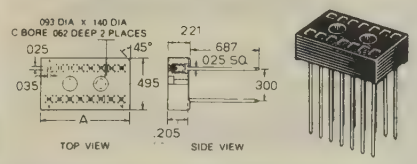
DUAL IN-LINE IC SOCKETS



D.I.P. Series. Bowed contacts provide .006 ohm max. resis. Accepts standard 14, 16 or 24 lead dual in-line IC pkg. with round or flat leads. 14-, 16-, 24-DIP have electrotin plated beryllium copper contacts; phenolic body; types with suffix-1 have gold plated beryllium copper contacts; diallyl phthalate. Current, 1 amp; 1800 V rms between adjacent contacts, —65° to +150°C. 14-contact: .770x.424x$^{31}/_{32}$" incl. leads; 16-cont.: .870 x.424x$^{31}/_{32}$"; 24-cont.: 1.296x.746x$^{31}/_{32}$". Av. shpg. wt. 1 oz.

Stock No.	Mfr's Type	No. Contacts	EACH 1-24	25-49	50-99	100-Up
750R1040	14-DIP	14	1.07	.86	.69	.56
750R1041	14-DIP-1	14	1.39	1.11	.89	.76
750R1044	16-DIP	16	1.15	.92	.74	.61
750R1045	16-DIP-1	16	1.55	1.24	.99	.85
750-1050	24-DIP	24	1.81	1.45	1.16	1.01
750-1051	24-DIP-1	24	2.13	1.70	1.36	1.21

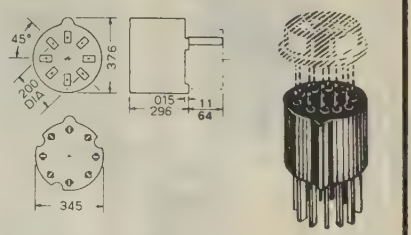
LOW PROFILE D.I.P. SOCKETS



Low profile wire-wrap dual-in-line sockets for use wherever vertical height is at a premium. Available in 14- and 16-pin contact sizes. Accept IC packages with flat or rolled leads and variation in thickness or diameter. .014/.019". Lead depth, 0.170". Dielectric housing of glass nylon (*black; †white). Phosphor-bronze contacts (DIP-2, -3 types gold-plated, others electrotinned). Shpg. wt. 2 oz.

Stock No.	Mfr's Type	Contacts	EACH 1-24	25-49	50-99	100-Up
750R0236	14-W-DIP	14*	1.10	.88	.71	.63
750-0237	14-W-DIP-1	14†	1.10	.88	.71	.63
750R0238	14-W-DIP-2	14*	1.38	1.10	.88	.79
750-0251	14-W-DIP-3	14†	1.38	1.10	.88	.79
750R0258	16-W-DIP	16*	1.15	.92	.74	.66
750-0259	16-W-DIP-1	16†	1.15	.92	.74	.66
750R0272	16-W-DIP-2	16*	1.56	1.21	1.01	.80
750-0273	16-W-DIP-3	16†	1.56	1.21	1.01	.80

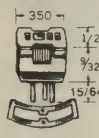
6, 8, AND 10-LEAD IC SOCKETS



Sockets are specially designed for integrated circuits that mount in 6, 8 or 10-lead, TO-5 cases. Offers exceptionally convenient and simple means for installation and removal of integrated circuits. Also permit quick, trouble-free in-circuit testing and maintenance. Rugged, durable construction of diallyl phthalate. Average shpg. wt. 1 oz.

Stock No.	Mfr's Type	EACH 1-24	25-49	50-99	100-Up
750-0885	6-ICS	.83	.66	.52	.46
750R0960	8-ICS	1.08	.86	.69	.61
750R1020	10-ICS	1.18	.94	.76	.67

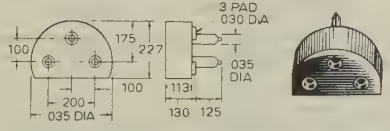
SUBMINIATURE SOCKETS



For test equipment, instruments, radios and other electronic apparatus which requires subminiature tubes. Molded, mica-filled low loss phenolic; silver-plated beryllium copper contacts. Av. shp. wt. 1 oz.

Stock No.	Mfr's Type	Fig.	Pins	EACH 1-24	25-49	50-99	100-Up
750-0819	2H3	A	3	.55	.44	.35	.28

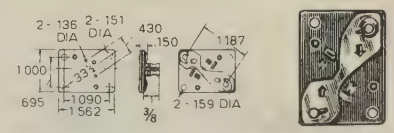
LO-PROFILE TO-5 SOCKET



For all TO-5 cases. Features gold-plated sockets of beryllium copper with integral double springs. Socket ht., 0.130" above PC board. Plastic body, molded from 20% glass-filled nylon for very high heat resistance. Current rating, 2½ amps. Insulation resistance, 100,000 megs. Voltage 2000 VDC; 1500 VAC. Wt. 2 oz.

750R1361. Type 3-LPS-B. 1-24 ..... **Ea. .28**
25-49 ... Ea. .22 50-99 ... Ea. .17 100-Up .. Ea. .15

POWER TRANSISTOR SOCKET

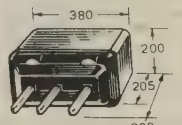


Type 2TS-1. Features laminated top and bottom plates for use under severe vibration conditions due to high initial withdrawal force. Transistor can be grounded to collector plate and be insulated from chassis at the same time. Top and bottom plates of XP phenolic, wax impreg. Formed threads for 6-20 screw. Shpg. wt. 3 oz.

750R0832. 1-24 ..... **Ea. .22 25-49** ..... **Ea. .15**
50-99 ..... **Ea. .11 100-Up** ..... **Ea. .09**

SOCKETS FOR SCR'S

3-contact nylon receptacle for I.R. IR106, Motorola MCR 406, G.E. C106. Nickel-silver contacts. 500 V rms. 5 amps. .200" center spacing. Press fits into cut-out. 2 oz.



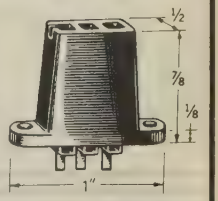
Stock No.	Mfr's Type	EACH 1-24	25-49	50-99	100-Up
713-2865	77-115	.44	.35	.28	.23

TRANSISTOR TEST SOCKET

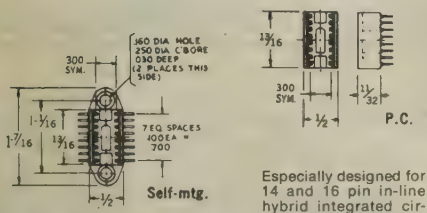
100 to 200°C Test Temperature

Type TS-187. Ideal for aging racks, incoming inspection, life testing, etc. Phenolic construction; beryllium copper contacts. Accepts .017" dia. transistor leads. Test temperature, 100°—200°C. I.R.: 10^5 megohms at 40% R.H. at 24°C. Shpg. wt. 3 oz.

885-0189. 1-24 ..... **Each 4.50 25-49** ..... **Each 3.60**
50-Up ..... **Each 2.88**



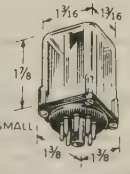
DUAL IN-LINE INTEGRATED CIRCUIT SOCKETS



Especially designed for 14 and 16 pin in-line hybrid integrated circuit packages having .100"x.300" grid spacing. Easily accommodates round or flat pin configurations. Body molded of phenolic plastic. Shipping wt. 2 oz.

Stock No.	Mfr's Type	No. of Contacts	Body Mount	EACH 1-49	50-99	100-249	250-Up
920-6252	6252	14	P.C.	.89	.71	.60	.51
920-6253	6253	16	P.C.	.89	.71	.60	.51

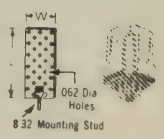
PLUG-IN MOLDED HOUSINGS



Octal headers fit standard sockets. Guide hole tapped 8-32 for terminal board manufacturing stud. Polystyrene housings for use to 170°F. Nylon, 300°F. Sm.: $1^3/_8$" sq. x $1^{15}/_{16}$" H.; Lg.: $1^{15}/_{16}$" sq. x $2^{31}/_{32}$" H.; Shipping weights: small, 1 oz.; Others, 2½ oz.

Stock No.	Mfr's Type	Size	Housing Material	Housing Color	EACH 1-9	10-24	25-Up
839-3365	665	Small	Poly.	Clear	1.15	.92	.77
839-3343	643	Small	Poly.	Black	1.10	.88	.73
839-3368	668	Large	Poly.	Clear	1.53	1.22	1.02
839-3377	677	Large	Poly.	Black	1.53	1.22	1.02
839-3339	639	X-Lge.	Poly.	Clear	1.98	1.58	1.32

TERMINAL BOARDS FOR PLUG-INS



Glass epoxy terminal boards for housings at left. Holes are .062" dia., spaced in .100" and .200" alternates. 8-32 threaded stud eyeletted to board for simple assembly with headers. G-10 glass epoxy boards are 1/16" thick; per GEE MIL-P-1877. Weight 1 oz.

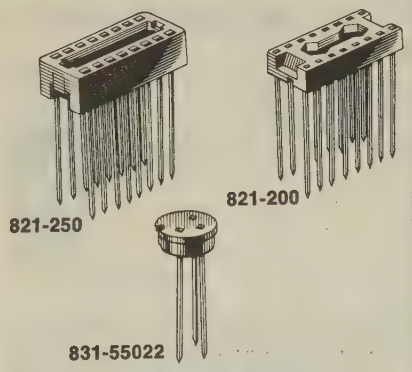
Stock No.	Mfr's Type	Board Size with stud	For Housing Size	EACH 1-9	10-24	25-Up
839-3397	697	1⅛x1¾	Small	.28	.22	.18
839-3398	698	1½x2¾	Large	.33	.26	.22

Alec Electron Says — "Plug-in" to a Honey-of-a-Deal with Our Unlimited Stock of Integrated Circuit and Transistor Sockets.

Larger Quantity Price Breaks Available on Request

High Reliability Sockets For Solid State Devices

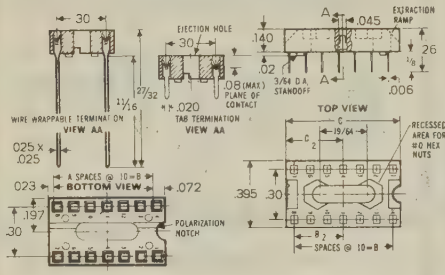
PRODUCTION SOCKETS



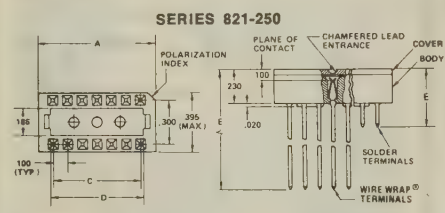
SERIES 821-200 DUAL-IN-LINE

- Single-Piece Construction
- Snap-On Insulated Lid for Easy Contact Replacement
- Use to Replace DIP Devices Without Risk of Unsoldering Them from PC Boards

High reliability production mounting sockets for dual-in-line IC devices. They are most useful in production applications where it is desirable to provide easy replacement of individual DIP devices without the risk of unsoldering them from PC boards or the expense of replacing entire boards. Single-piece construction; dual wiping action contacts for round or flat leads. Replaceable contacts in case of damage. Front entry chamfered-maximum lead-in. Snap-on insulated lid for ease of contact replacement. W-W indicates Wire Wrap terminals. *indicates phosphor bronze contacts; all others beryllium copper. Dimension A: 14-pin, 6; 16-pin, 7; 18-pin, 8. Dimension B: 14-pin, .600"; 16-pin, .700"; 18-pin, .800". Dimension C: 14-pin, .695"; 16-pin, .795"



Stock No.	Mfr's Type	Con-tacts	Termi-nals	EACH 1-24	25-99	100-Up
713R8508	821-20011 144	14*	W-W	.91	.73	.56
713R8510	821-20011-164	16*	Tab	.98	.78	.63
713R8512	821-20012-144	14	Tab	.93	.74	.59
713R8514	821-20012-164	16	Tab	1.01	.81	.62
713-8516	821-20013-144	14	W-W	1.64	1.31	1.01
713R8518	821-20013-164	16	W-W	1.87	1.50	1.15



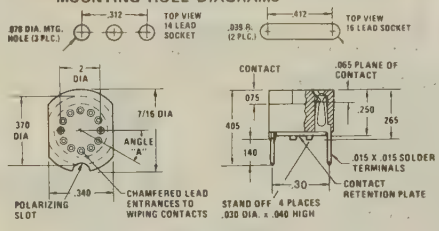
SERIES 821-250 DUAL-IN-LINE

Construction as above. *Solder term.; †Wire Wrap. Dim. "D": 14-pin, .630"; 16-pin, .730". Dim. "E": 2⅝4" except wire-wrap term., 1⅝16".

Stock No.	Mfr's Type 821-	Con-tacts	Dimen. (In.) "A"	"B"	"C"	EACH 1-24	25-99	100-Up
713-8500	25011-144	14*	.795	.312	.600	1.20	.96	.77
713-8502	25011-164	16*	.895	.412	.700	1.45	1.16	.93
713-8506	25012-164	16†	.895	.412	.700	1.90	1.52	1.22

831-55022 TO-CAN

Durable nylon; holds TO-5 cans in firm, long-time contact. Resists dirt and environmental attacks.

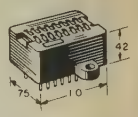

MOUNTING HOLE DIAGRAMS
TOP VIEW 14 LEAD SOCKET
TOP VIEW 16 LEAD SOCKET
CONTACT
.065 PLANE OF CONTACT
.015 X .015 SOLDER TERMINALS
CONTACT RETENTION PLATE
POLARIZING SLOT
CHAMFERED LEAD ENTRANCES TO WIPING CONTACTS
STAND OFF - 4 PLACES .030 DIA. x .040 HIGH

SERIES 831-55022

Stock No.	Mfr's Type	Contacts	Angle "A"	EACH 1-24	25-99	100-Up
713R8530	831-55022-084	8	45°	.85	.68	.52
713-8532	831-55022-104	10	36°	.90	.72	.56
713-8534	831-55022-124	12	30°	1.06	.86	.63

DUAL-IN-LINE SOCKETS FOR PC OR CHASSIS MOUNTING

- Rugged Molded Polysulfone Body
- Long Life, Low Leakage
- Easy Mount, Won't Shake Loose

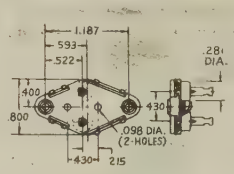


These rugged molded polysulfone dual-in-line sockets standup to long term test temperatures from −65°C to 150°C. They have excellent wear characteristics and extremely low leakage. 1-piece contacts are precisely made from beryllium copper and are nickel/gold plated to prevent corrosion. Contacts are designed to provide a gentle wiping action for minimal insertion and withdrawal force. These sockets are furnished with handy mounting flanges to give them PC or chassis mounting versatility. They install easily and will not work loose even when severe vibration occurs.

Stock No.	Mfr's Type	No. of Leads	Mount-ing	EACH 1-24	25-99	100-Up
713-8408	621-01011-161	16	PC	3.95	3.16	2.53
713-8409	621-01012-141	14	Chassis	3.54	2.84	2.27
713-8410	621-01012-161	16	Chassis	3.95	3.16	2.53

POWER TRANSISTOR SOCKET

- For High Current and Power Applications With Transistors Having TO-3 Cases

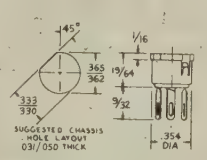


- Precision Made from High Quality Materials

For use with transistors having a TO-3 case. General purpose phenolic with phosphor bronze contacts, gold over silver plated. Mounting plate with 6-32 tapped holes. Sold in packages of 100.

Stock No.	Mfr's Type	For Case	PER PKG. OF 100 1-9	10-Up
920-6266	6266	TO-3	27.05	23.00

TRANSISTOR SOCKETS

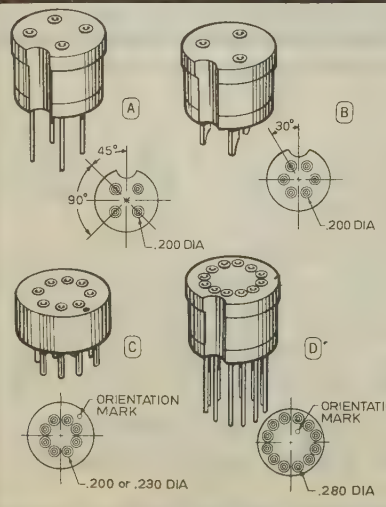


- Precision Made from High Quality Materials

Snap-in type transistor sockets for TO-5 and TO-18 cases. Also accepts 3 and 4 lead plus 3 lead in-line transistors. Phosphor bronze, cadmium plated contacts with polysulfone body. Sockets fit in "D" shape hole.

Stock No.	Mfr's Type	For Case	PER PKG. OF 100 1-9	10-Up
920-6264	6264	TO-18	15.00	11.57
920-6265	6265	TO-5	15.00	11.57

FLUOROCARBON SOCKETS FOR TO-5 PACKAGE SIZE COMPONENTS



- Gold Over Nickel Plated Screw Machine Contacts
- High Force Contact Springs of Beryllium Copper
- Extremely Low Resistance Contacts
- Meet Severe Vibration and Shock Requirements
- Fluorocarbon Insulator
- Low Interlead Capacitance
- Closed Entry Prevents Stubbing or Damage from Misaligned, Oversized Lead
- For .016" to .019" leads

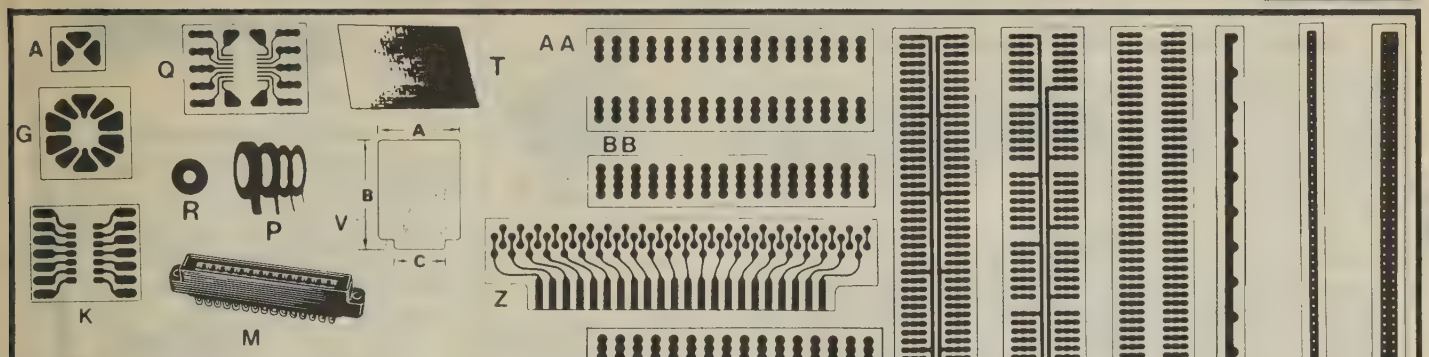
Top Quality sockets with gold over nickel plated Beryllium Copper contact springs. They provide maximum reliability under conditions of vibration and shock even in low level circuits. Fluorocarbon insulators permit operation at 200° C. Available with short and long solder tails and solder cups, 3 thru 12 pins.

Stock No.	Mfr's Type	Con-tacts	Mounting	Terminal Style	Pin Circle	Fig.	EACH 1-9	10-24	25-99	100-Up
957-5012	8120TE303-2	3	Chassis	Long solder pin	.200"	A	1.30	1.04	.80	.66
957-5013	8120TE303-4	3	Chassis	Solder cup	.200"	A	1.30	1.04	.80	.66
957-5014	8120TE304-2	4	Chassis	Long solder pin	.200"	A	1.60	1.29	.99	.81
957-5015	8120TE306-2	6	Chassis	Long solder pin	.200"	B	2.12	1.71	1.31	1.08
957-5007	8120TE308-2	8	Chassis	Long solder pin	.230"	C	2.95	2.38	1.82	1.50
957-5008	8120TE308-4	8	Chassis	Solder cup	.230"	C	2.78	2.24	1.72	1.41
957-5010	8121TE308-1	8	PC Mt.	Short solder pin	.230"	C	2.78	2.24	1.72	1.41
957-5005	8122TE308-2	8	Chassis	Long solder pin	.200"	C	2.95	2.38	1.82	1.50
957-5001	8122TE308-4	8	Chassis	Solder cup	.200"	C	2.95	2.38	1.82	1.50
957-5004	8122TE310-2	10	Chassis	Long solder pin	.230"	C	3.45	2.78	2.13	1.75
957-5002	8122TE310-4	10	Chassis	Solder cup	.230"	C	3.48	2.80	2.14	1.76
957-5003	8122TE312-4	12	Chassis	Solder cup	.280"	D	4.05	3.26	2.50	2.06
957-5009	8123TE308-1	8	PC Mt.	Short solder pin	.200"	C	2.78	2.24	1.72	1.41
957-5006	8123TE310-1	10	PC Mt.	Short solder pin	.230"	C	3.45	2.78	2.13	1.75
957-5011	8123TE312-1	12	PC Mt.	Short solder pin	.280"	D	4.05	3.26	2.50	2.06

Prices Subject to Change – We Always Ship at Lowest Price in Effect

PC Board Copper Patterns and Klip-Strips

ADHESIVE-BACKED COPPER PATTERNS FOR PC BOARDS



Sub-Elements are approx. 1/2 size.

This aerospace proven concept in circuit packaging permits rapid assembly of prototypes and limited quantity production systems directly from engineering schematics and logic flow diagrams. All sub-element conductors are preplated and ready for soldering. Etched copper sub-elements are supplied on thin substrates which have a high strength pressure sensitive adhesive backing. Withstand soldering temperatures, adhere tightly, yet can be removed.

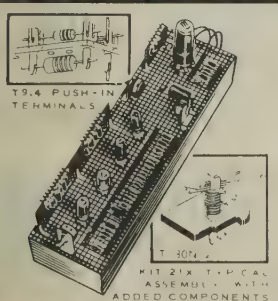
THE "1000" SERIES SUB-ELEMENTS ARE PRE-DRILLED ON .100-INCH GRID TO MATCH PRE-DRILLED BOARD MATERIAL—REQUIRES NO DRILLING AND NO TERMINALS

TO-5 & 10-18 SUB-ELEMENTS

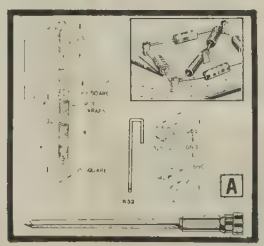
Stock No.	Mfr's Type	Fig.	Pcs. Per Pkg.	Sub-Element Description	Per Pkg. 1-9	Per Pkg. 10-Up
665-1000	1001-010	A	10	TO-18 or TO-5 3 Lead	5.25	4.20
665-1010	1001-030	A	30	TO-18 or TO-5 3 Lead on 5 strips	14.00	11.20
665-1080	1025-010	G	10	TO-5 10 Lead	6.13	4.90
				DUAL-IN-LINE PACKAGE SUB-ELEMENTS		
665-1120	2101-010	K	10	Dual-In-Line 14 Lead	6.13	4.90
				4 PADS		
665-1130	1201-005	U	5	6 DIP's/Strip, 14/16 Lead, pwr. and gnd avail.	12.27	10.58
665-1150	1205-005	W	5	Universal, 30 DIP's on 5 strips	12.27	10.58
				3 PADS SHOWN		
665-1190	1206-005	W	5	Universal, 30 DIP's on 5 strips	10.52	8.95
				SINGLE PADS		
665-1290	1062-010	Q	10	Flat Pack, 14 Lead	6.12	4.90
				EPOXY-GLASS BOARD MATERIALS—PRE-SHAPED BOARDS *PRE-DRILLED HOLES ON 100 INCH GRID PATTERN*		
665-1530	7301	T	1	8½" x 17"	11.64	9.90
665-1540	7402	V	1	"A"-4.5", "B"-6.5", "C"-22 pins	10.43	8.34
				CONNECTORS, .156 PIN SPACING		
665-1560	7503	M	1	22 Pins	5.25	4.20
665-1570	7504	M	1	44 Pins	6.13	4.90

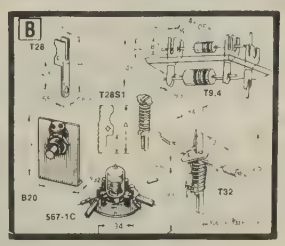
PLUG-IN CONNECTOR STRIPS "HARD GOLD OVER NICKEL PLATE"

Stock No.	Mfr's Type	Fig.	Pcs. Per Pkg.	Sub-Element Description	Per Pkg. 1-9	Per Pkg. 10-Up
665-1310	1355-005	Z	5	15 Pin, .156" Spacing Component Side	10.52	8.95
665-1320	1356-005	Z	5	15 Pin, .156" Spacing, Circuit Side	10.52	8.95
665-1330	1361-005	Z	5	22 Pin, .100" Spacing, Component Side	12.27	10.58
665-1340	1362-005	Z	5	22 Pin, .100" Spacing, Circuit Side	12.27	10.58
665-1350	1365-005	Z	5	22 Pin, .156" Spacing, Component Side	12.27	10.58
665-1360	1366-005	Z	5	22 Pin, .156" Spacing, Circuit Side	12.27	10.58
665-1370	2367-005	J	5	22 Pin, .156" Spacing, Component Side	10.52	8.95
665-1380	2368-005	J	5	22 Pin, .156" Spacing, Circuit Side	10.52	8.95
				DISCRETE COMPONENT STRIPS		
665-1390	1302-005	AA	5	16 Discrete, Component Strip, mounts 80	11.38	9.10
665-1400	1311-010	BB	10	Universal Strip, mounts 80 discretes	12.25	9.80
665-1410	2301-005	L	5	Mounts 105 components	9.63	7.70
				DISTRIBUTION STRIPS		
665-1420	1321-010	CC	10	.100" wide	7.00	5.60
665-1440	1325-010	GG	10	Single Row .100" hole spacing	8.33	6.66
665-1450	1326-010	HH	10	Double Row .100" hole spacing	9.20	7.36
				COPPER TAPE, DONUT PADS		
665-1460	7101	P	1	.062" wide x 9 ft. long	1.75	1.40
665-1470	7102	P	1	.100" wide x 9 ft. long	2.10	1.68
665-1480	7103	P	1	.187" wide x 9 ft. long	2.38	1.90
665-1490	7104	P	1	.250" wide x 9 ft. long	4.38	3.50
665-1500	7201	R	250	.100" dia. pads	5.25	4.20
665-1510	7202	R	250	.125" dia. pads	5.25	4.20



KLIP-STRIP/KLIP-BLOK BREADBOARDING SYSTEM





EXPERIMENTERS' CHASSIS KITS

Push-in terminals, perforated XXXP phenolic decks, aluminum supports, T-30N-2 Installation tool, spring pusher tool, hardware. Terminals: T-9.4 with insert tool (push-in type require soldering); T-30N-2 patchcords supplied. Each pair of small decks* is: $1\frac{3}{8}$x$1\frac{29}{32}$x$\frac{3}{32}$" and $1\frac{29}{32}$x$8\frac{1}{2}$x$\frac{3}{32}$". All kits except 20X include layout paper, brackets screws and nuts.

Stock No.	Mfr's Type	Main Deck	*	Wt. Lbs.	EACH 1-24	EACH 25-99	EACH 100-299	EACH 300-Up
977-1150	20X	4¾x8½	0	1	12.68	10.14	8.47	7.20
977-1154	22X	4¾x8½	2	1¼	16.76	13.97	11.97	10.46

A MICRO PUSH-IN TERMINALS

T42-1 Microklip. Solderless terminals for .042" dia. holes. Holds wire in top slot and end hole. Tinned beryllium copper. **K32 J-Pin.** .250" square pin stakes in two adjacent .042" dia. holes. Wrap or solder to two different length tails. **T44 Miniwrap.** Low profile (.065" above board) seats firmly in .042" dia. hole. Wrap post and slot for wires. Phosphor bronze tin plated. **T46 Miniwrap.** Wire wrapping pin .028" sq., has swagged midflange for firm holding in .042" dia. holes. Phosphor bronze, tin plated.

Mfr's Type	Stock No.	Pkg./100 1-9	Pkg./100 10-Up	Stock No.	Pkg./1000 1-9	Pkg./1000 10-Up
T42-1	977R0970	2.88	2.28	977R0971	15.38	13.08
T44	977R0972	3.25	2.60	977-0973	18.37	15.62
T46	977-0978	4.88	3.90	• • •	• •	• •
K32	977-0595	2.08	1.66	977-0596	16.21	13.90

INSERTION TOOLS FOR MICRO PUSH-IN TERMINALS

Stock No.	Mfr's Type	Used For	EACH 1-9	EACH 10-Up
977-0013	A-13	T44	3.33	2.66
977-0689	P149 Straight	T42-1	3.60	2.88

B PUSH-IN TERMINALS. Solderless T32A springclip has less than .020 ohm resistance. Fits "Vectorbord." T9.4 and T28 press-fit; teeth in slots hold lead till soldered. *Fits .093" hole. †Fits .062" hole. Shpg. wt.: Pkg./1000, 12 oz.

Mfr's Type	Desc.	Stk. No. 977-	PKG. 100 1-9	PKG. 100 10-Up	Stk. No. 977-	PKG. 1000 1-9	PKG. 1000 10-Up
T9.4*	Tin-brass	R0923	2.60	2.08	0924	15.16	13.28
T28†	Tin-copper	R0950	2.83	2.26	0951	16.55	14.07
T28S1†	Sil-copper	0954	3.25	2.60	.....	.....	.....
T32A*	Nic-brass	0965	16.50	14.03	.....	.....	.....

INSERTION TOOLS. Simplify terminal insertion. 2 oz.

Stock No.	Mfr's Type	Used For	EACH 1-24	EACH 25-99	EACH 100-499	EACH 500-Up
977R0650	P-91	T28	1.13	.90	.75	.64
977-0667	P-122B	T9.4	3.47	2.48	2.08	1.76

TYPE B20F POT AND SWITCH BRACKETS. Durable aluminum. Used for mounting of pots and switches on any "A" or "AA" pattern Vectorbords. Wt. per pkg. 6 oz.
977R0120. Pkg. of 4. 1-9.....1.68 10-Up.....1.34

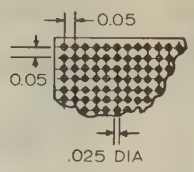
Higher Quantity Prices On Request

Circuit Boards, Plugboards and Receptacles

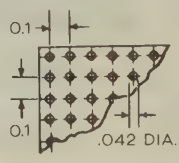
MICRO-VECTORBORD® PRE-PUNCHED CIRCUIT BOARDS

Fire-retardant laminated boards punched with 0.042" or 0.025" holes for installation of DIP integrated circuits, "flat-packs," discrete components and solder or wrapped wire terminals. May be sawed, punched or drilled. Last three digits in Mfr's part no. indicate board thickness. Suffix C1 indicates 2 oz. copper-clad (one side) Type FL-GF per **MIL-P-13949E**, NEMA grade FR-4 and G-10. Other epoxy glass boards are Type GEE per **MIL-P-181776**, NEMA grade FR-4 and G-10. Epoxy paper boards (Suffix EP) are Type PEE per **MIL-P-22324**, NEMA grade FR-3. Phenolic boards (Suffix XXXP) are NEMA grade FR-2. Ten different sizes available from 6x2 to 17x8½. Shpg. wt. 2 oz. each.

PATTERN "M"



PATTERN "P"

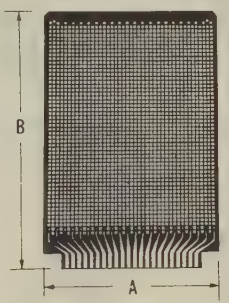


Stock No.	Mfr's Type	Size, L x W Inch	Pattern	EACH 1-9	10-24	25-99	100-Up
977-1196	59P19-032	6x2	P	1.45	1.16	.97	.82
977-1197	59P44-032	6x4½	P	2.68	2.74	1.79	1.52
977-1212	64P44-062	6½x4½	P	2.95	2.36	1.97	1.68
977-1215	64P44-062EP	6½x4½	P	2.78	2.22	1.85	1.58
977-1244	126M76-032	6½x4	M	4.10	3.28	2.74	2.33
977R1255	169P44-062	17x4½	P	7.20	5.76	4.81	4.09
977-1260	169P44-062EP	17x4½	P	6.33	5.06	4.23	3.59
977-1263	169P59-032	17x6	P	9.55	7.64	6.38	5.42
977-1265	169P59-047	17x6	P	9.70	7.76	6.48	5.51
977-1267	169P84-062	17x8½	P	13.18	10.54	8.80	7.48

IC AND DISCRETE-MOUNT PLUGBOARDS

- **Suited for a Wide Range of Requirements**
- **Completely Wired Plugboards**
- **Max. Mounting Flexibility**
- **Nickel Gold Plated Contacts**

These plugboards offer maximum mounting flexibility for IC's, discrete components, DIP packaged devices, pins and pin sockets. 0.042" holes on 0.1" centers, 0.1" holes for ejectors. Nickel gold plated contacts. Connections to contacts readily made by soldering wires to contact pad or installing contact solder lug. Materials meet same specifications as Micro-Vectorbord® above. Completely wired plugboards may be mounted in Vector card or module cases and cages.

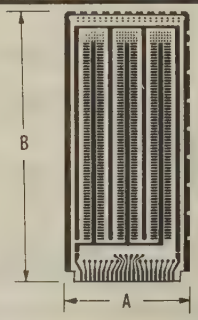


Stock No.	Mfr's Type	A	B	Board Mat'l	Contacts Total	1 or 2 Sides	Type	Spacing	Mating Receptacle	EACH 1-9	10-24	25-99	100-Up
977R1398	3662-1	4½	6½	XXXP Phen.	44	2	Etched	.156	R644 or R644-1	8.50	6.80	5.68	4.83
977R1399	3662	4½	6½	Epox. Glass	44	2	Etched	.156	R644 or R644-1	8.93	7.14	5.96	5.07
977-1415	3719-1	4½	6½	Epox. Glass	72	2	Etched	.100	R636	12.98	10.38	8.67	7.37

UNIVERSAL D.I.P. PLUGBOARDS

- **Convenient, Ready to Use**
- **Two Sides of Flame Retardant Epoxy Glass**
- **Bus Strips Interlaced Between Pads**

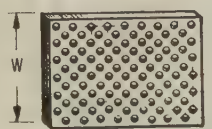
Universal mounting for DIP's, transistors and discrete components. 2 oz. copper clad on two sides of flame retardant 0.062" type FL-PH per **MIL-P-13949D** epoxy glass. 0.042" holes on 0.1" centers, tinned oval shaped pads. Holes accept Vector solder Push-In, wire-wrappable, socket-pin or inbord terminals. Bus strips interlaced between pads. Etched contacts on .156" centers, 22 each side. Completely wired plugboards may be mounted in Vector card or modules cages. Gold, nickel-plated contacts. 0.1" ejector holes. 3 oz.



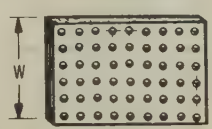
Stock No.	Mfr's Type	A	B	Board Mat'l	Contacts Total	1 or 2 Sides	Type	Spacing	Mating Receptacle	EACH 1-9	10-24	25-99	100-Up
977R1402	3677	4½	9.6	Epox. Glass	44	2	Etched	.156	R644 or R644-1	14.83	11.86	9.88	8.47
977R1403	3677-2	4½	6½	Epox. Glass	44	2	Etched	.156	R644 or R644-1	13.25	10.60	8.83	7.57

PREPUNCHED BOARDS

Vectorbord® prepunched terminal board. Electrical grade laminate with holes located on various centers. May be sawed, punched or drilled. Push-in terminals available. No suffix letters indicate phenolic, XXXP per **MIL-P-31158**; suffix EP—epoxy paper, EXXXP per **MIL-P-22324**; suffix WE—epoxy glass, G-10 per **MIL-P-18177**. Patterns A, B, F, G and H are 1/16" thick, AA, 3/32" t. Patterns A, AA: .093" holes on .265" grid. B: .062" holes on .188" grid. F: .062" holes on .2" grid. G: .062" holes on staggered .1" grid. H: .062" holes on .1" grid. All 17" long except *8½". T9.4, T28 terminals fit A and AA. T28, T28S1, T32A-1 fit B, F, G and H. Av. shpg. wt. 5 oz.

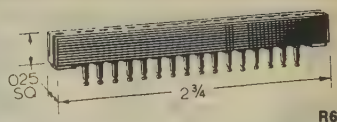


G



A,AA,B,F,H

Stock No.	Mfr's Type	W in.	Pattern	No. Holes	EACH 1-24	25-99	100-299	300-Up
977-1175	32AA18	4.8	AA	32x18	1.53	1.22	1.02	.86
977-1188	42G24WE*	4.8	G	(42x23)x2	3.38	2.70	2.25	1.92
977-1194	45B30*	5	B	45x30	1.48	1.18	.99	.84
977-1201	64A18	4.8	A	64x18	2.90	2.32	1.94	1.37
977-1204	64A18WE	4.8	A	64x18	6.70	5.36	4.48	3.81
977-1206	64AA18	4.8	AA	64x18	2.90	2.32	1.94	1.37
977-1208	64AA32	8½	AA	64x32	4.95	3.96	3.31	2.81
977-1228	85F24EP	4.8	F	(85x23)x2	3.90	3.12	2.61	2.22
977R1233	85G24EP	4.8	G	(85x23)x2	3.90	3.12	2.61	2.22
977-1234	85G24WE	4.8	G	(85x23)x2	6.83	5.46	4.56	3.88
977-1236	85G42EP	8½	G	(85x41)x2	6.78	5.42	4.53	3.85
977-1237	85G42WE	8½	G	(85x41)x2	9.68	7.74	6.46	5.50
977-1238	90B30	5	B	90x30	3.25	2.60	2.17	1.85
977R1271	170H48WE	4.8	H	47x169	7.25	5.80	4.83	4.12

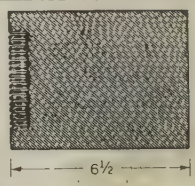


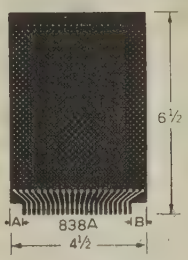
R616-1

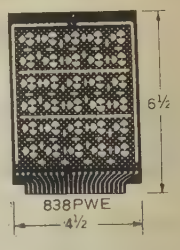
PLUGBOARD RECEPTACLES

R612-1, R616-1 and R635 have combination solder tab/taper tab contact. R644 has solder tab contact. *Elco Varicon. Average shpg. wts. 3 oz.

Stock No.	Mfr's Type	No. Cts.	Ctrs.	Style For	EACH 1-24	25-Up
977-0777	*R612-1	12	.2	837; 837WE	4.88	3.90
977-0779	*R616-1	16	.2	812; 812WE	6.00	4.80
977-0781	*R635	35	.1	848WE; 848PWE; 2536WE	13.60	10.88
977-0783	R644	44	.156	838; 838A; 838AWE; 838PWE; 838WE; 3662; 3662-1; 3682	6.00	4.80







PLUGBOARDS FOR MOUNTING DISCRETE COMPONENTS

- **Convenient, Ready-to-Use**
- **Suited for a Wide Range of Requirements**
- **Ideal for Both Experimental and Production Work Where Pre-Punching Permits Changes to be Made Freely**
- **Made from Fire Retardant Materials**
- **Contacts Numbered for Easy Identification**

812 ONE-TIER PLUGBOARDS. Made of fire retardant epoxy paper with overall grid of precision punched 1/16" dia. holes on alternate intersections of 0.1" grid for optimum mounting of JEDEC type transistors, push-in terminals, turned type terminals, eyelets or component leads. All 16 Varicon contacts are phosphor bronze, nickel and gold plated. These boards are particularly suited for hostile environmental conditions where severe vibration may occur.

838A PLUGBOARD WITH PC CONTACTS. This fire retardant epoxy paper board has an overall grid of precision punched 1/16" dia. holes on alternate intersections of 0.1" grid for optimum mounting of transistors and discrete components. Individually etched contacts are on .156" centers and are .090" wide. Contact tongue, except for 838A-1, is offset .050" from board center line. A chamfered leading contact edge assures smooth, easy entry into all types of PC Receptacles. Has 43 independent, tin alloy finished contacts set in two rows. Contacts are numbered for easy identification and have solder tab and wire wrapping tails. Current rating for a 10°C temp. rise is 3.5 amps.

838PWE PLUGBOARD FOR TRANSISTOR MOUNTING. Fire retardant epoxy glass board has etched copper pads and lines on one side around certain holes to facilitate soldering in component leads. Etched pads are solder coated to prevent corrosion. Triangular pad pattern ideal for transistor leads since hole spacing matches JEDEC standard. Holes are .062" dia. on alternate intersections of 0.1" grid. The 22 printed plug tabs, on one side only, are on .156" centers and are offset .05" from center to aid in polarization. Contact current rating for a 10°C temp. rise is 4.5 amps. Furnished with beveled corners.

812 ONE-TIER PLUGBORD WITH INSTALLED VARICON CONTACTS

Stock No.	Mfr's Type	Contacts	EACH 1-24	25-99	100-499	500-Up
977-1305	812	16	6.23	4.98	4.16	3.54

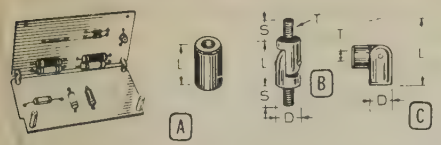
ETCHED CONTACT PLUGBORDS

Stock No.	Mfr's Type	No. Contacts Front	Back	EACH 1-24	25-99	100-499	500-Up
977-1312	838	22	21	7.43	5.94	4.96	4.22
977-1313	838A	22	..	5.40	4.32	3.61	3.07
977-1314	838A-1	22	..	5.40	4.32	3.61	3.07
977R1320	†838PWE	22	..	7.68	6.14	5.13	4.36
977R1321	838WE	22	..	7.38	5.90	4.93	4.19

Alec Electron Says – Allied's "Guide" is the "Yellow Pages" of Electronics

PC Accessories, Allied PC Board Holders, Vises

HINGED TERMINAL BOARD STANDOFFS



Hinged standoffs have unlimited applications. Interconnect circuits or services without danger of shorting. Standoffs mount at front of board. Made of Brass per **MIL Spec QQ-B-626A** Comp. 22-½ hard. Cadmium Plate finish per **QQ-P-416** Class 2, Type 2 and gold iridite. 90° swivel. *⅝" long below hinge, ⅜" above. †Male stud length. Av. shpg. wt. 2½ oz. **Sold in packages of 10 only.**

(A) STANDOFFS FOR FRONT OF BOARDS

Stock No.	Mfr's Type	Use with Hinge No.	Lgth. In.	PER PKG. OF 10 1-9	10-24	25-Up
839-3421	1657A	351	¾	1.83	1.46	1.22
839-3422	1657B	352	1	2.13	1.70	1.13

(B) MALE HINGED STANDOFFS

Stock No.	Mfr's Type	Thd.	Dia. In.	L. In.	S-Thd. Depth In.	PER PKG. OF 10 1-9	10-24	25-Up
839-3321	357	4-40	.187	½	¼†	4.75	3.80	3.17
839-3322	358	6-32	.250	½	5/16†	5.00	4.00	3.34

(C) FEMALE HINGED STANDOFFS

839-3315	351	4-40	.187	¾	.172	5.00	4.00	3.34
839-3316	352	4-40	.187	1	.250	5.50	4.40	3.67
839-3317	353	6-32	.250	¾	.172	5.25	4.20	3.51
839-3318	354	6-32	.250	1*	.250	5.75	4.60	3.84

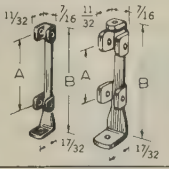
PC COMPONENT CLIPS

Mtg. holes: V1000 to V1006, 3/32"; V1008, 1/32"; V1010 & V1011, two 1/32". ½" long except V1010 & V1011, 1⅛". *Dia. of part held. **Per Pkg. of 10.**

Stock No.	Mfr's type	Dia.* Inches	Per Pkg. of 10 1-9	10-24	25-49	50-Up
911-5000	V-1000	¼	.95	.85	.75	.61
911-5002	V-1002	⅜	.98	.88	.78	.63
911-5004	V-1004	½	1.01	.91	.81	.66
911-5008	V-1008	¾	1.15	1.05	.95	.75
911-5010	V-1010	1	1.63	1.53	1.43	.92
911-5011	V-1011	1⅜	1.80	1.70	1.60	1.04

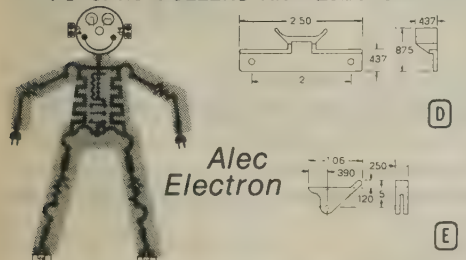
CIRCUIT BOARD MOUNTING BRACKETS

Provides rigid support under shock or vibration. Mounts single or double panels. Meets **MIL-STD-202** and **MIL S-901** (Ships) specifications. *Distance between ctrs. of holes in panel supports. Formed from cold-rolled carbon steel. Av. shpg. wt. 4 oz.



Stock No.	Mfr's Type	B Ht. In.	A Support Centers* Inches	EACH 1-99	100-499	500-up
904-0510	MB-125	2 1/16	1	.53	.36	.32
904-0511	MB-126	2 5/16	1½	.53	.36	.32
904-0512	MB-127	3 1/16	2	.54	.39	.35
904-0513	MB-128	3 5/16	2½	.55	.41	.37

PC CARD PULLERS AND EJECTORS



Alec Electron

Simplify card removal and ejection. White nylon material, ready to mount.

Stock No.	Figure	Type	Color	EACH 1-9	10-24	25-Up
957-4003	D	5005-09N	White	.65	.52	.34
957-4004	E	5005-20N	White	.50	.40	.27

Figure E is Ejector—hardware supplied.
Figure D is Standard Puller.

STANDARD AND BOWED CARD GUIDES

Black nylon. Series 8828 (Bowed) for .090" thick boards. Series 8827 (Stand.) for .062" thick boards.

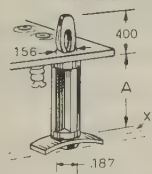
Stock No.	Mfr's Type	Length	For Bd.	EACH 1-9	10-24	25-99	100-Up
957-4105	8827-2	2"	.062"	.28	.22	.18	.14
957-4106	8827-3	3"	.062"	.30	.24	.20	.15
957-4107	8827-5	5"	.062"	.33	.26	.22	.17
957-4108	8828	3.5"	.090"	.65	.52	.43	.37

CERAMIC STAND-OFF INSULATORS

Threaded at both ends to accept 6-32 or ¼-20 machine screws except Type 2640 which is threaded throughout. 3 oz. **Per Pkg. of 10.**

Stock No.	Mfr's Type	Dimen. In. A	B	C	Thd.	Pkg. of 10 1-9	10-24	25-Up
920-2540	2640	¼	¼	Thru	6-32	2.96	2.37	1.98
920-2541	2641	½	¼	5/32	6-32	3.10	2.48	2.07
920-2542	2642	⅜	⅜	5/32	6-32	3.23	2.58	2.16
920-2543	2643	½	⅜	5/16	6-32	3.37	2.69	2.25
920-2544	2644	½	½	9/64	6-32	3.50	2.80	2.34
920-2545	2645	¾	½	¼	6-32	3.64	2.91	2.43
920-2546	2646	1	½	⅜	6-32	3.91	3.12	2.61
920-2547	2647	1½	½	5/16	6-32	4.45	3.56	2.97
920-2549	2649	2½	¾	¼	¼-20	14.98	11.98	10.00

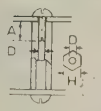
CIRCUIT BOARD SUPPORTS



Board supports are easily installed by hand. Assembled boards are readily mounted, lock in place and are easily removed for replacement or repair. Made from strong, tough nylon. Positive spring locking action, yet are easily removed. Snap into .187" hole in chassis .030-.093" thick. Av. shpg. wt. 4 oz. **Sold in packages of 100.**

Stock No.	Mfr's Type	Height Inches	PER PKG. OF 100 1-9	10-24	25-49	50-Up
911-0503	CBS-3N	3/16	2.84	2.00	1.60	1.39
911-0504	CBS-4N	¼	2.99	2.10	1.67	1.45
911-0506	CBS-6N	⅜	3.14	2.20	1.76	1.53
911-0508	CBS-8N	½	3.29	2.30	1.84	1.60
911-0510	CBS-10N	⅝	3.57	2.52	2.00	1.75
911-0512	CBS-12N	¾	3.79	2.67	2.13	1.86
911-0514	CBS-14N	⅞	4.01	2.82	2.24	1.96

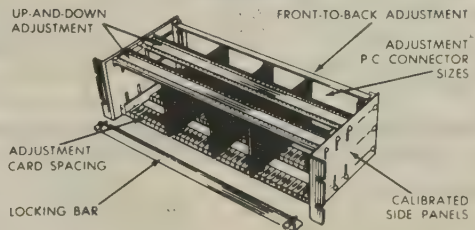
HEX PVC SPACER STAND-OFFS



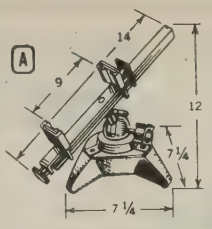
Gray polyvinyl dichloride with high dielectric, excellent insulation and mechanical strength. Self-extinguishing; low moisture absorption; resistant to chemicals; easy to apply. For use with self-tapping screw (size 4, 6, 8 as indicated). 5 oz. **Pkg. of 100 only.**

Stock No.	Mfr's Type	Lgth. In.	Hex In.	Screw Size	PER PKG. OF 100 1-9	10-24	25-49	50-Up
911-0674	HS4-4	½	.187	#4	3.53	2.65	2.21	1.88
911-0678	HS4-8	1	.187	#4	4.35	3.26	2.72	2.26
911-0684	HS6-4	½	.250	#6	3.95	2.96	2.47	2.08
911-0685	HS6-5	⅝	.250	#6	4.25	3.19	2.66	2.21
911-0686	HS6-6	¾	.250	#6	4.55	3.41	2.84	2.36
911-0688	HS6-8	1	.250	#6	5.17	3.88	3.23	2.64

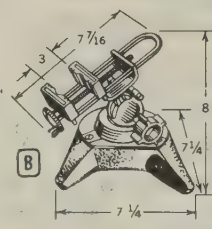
UNIVERSAL PRINTED CIRCUIT CARD RACK



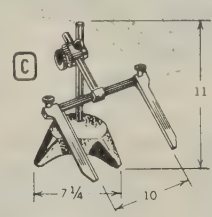
Type 3050. Fits 19" racks. Card guide, connector rails slide on nylon bushing for easy centering adjustment. Capacity for 39 cards and guides. For card size: 1/16" thk, 2⅜"-13¾" w., 3½-7¼" long. Card spacing: .400" min., centers adjust in .400" increments. Aluminum. 19 x 5¼ x 8". Wt. 2½ lbs.
920R2850. 1-9 .....**Each 31.44**
10-24.....**Each 27.95** **25-Up**.....**Each 23.58**



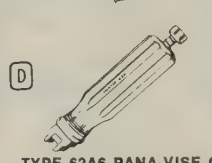
(A) TYPE 62E4 QUICK-ADJUST VISE. Instantly adjusts from 9" opening to smaller center opening. Non-slip neoprene jaws. Consists of chrome-plated steel vise, spring-loaded positioner, 5 lb. cast iron base. Wt. 10 lbs.
809-4491. 1-4 .....**Each 44.76**
5-Up .....**Each 38.06**



(B) TYPE 62E10 WIDE-OPENING VERTICAL VISE. 6" with Pana Positioner holds 15 lbs. with cast iron base, 50 lbs. when bolted to bench. Spring-loaded positioner adjusts to any position; relocates to another without readjustment. Crank handle. Chrome-plated heavy gauge steel wire. Replaceable jaws. Rubber feet. Wt. 10 lbs.
809-4497. 1-4 .....**Each 33.32**
5-Up .....**Each 28.33**

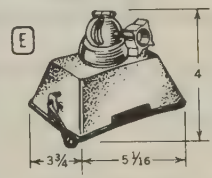


(C) TYPE 62L5 CIRCUIT BOARD HOLDER. Spring loading allows quick insertion and removal of boards up to 10" wide. Permits 360° rotation for lead bend-over. Adjustable tension for easy flip-over, or to lock board in place. Friction bearing for 360° rotation. Wt. 7 lbs.
809R4499. 1-4 .....**Each 42.33**
5-Up .....**Each 36.00**

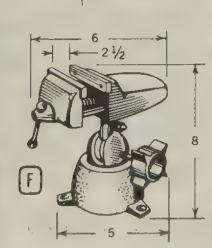


(D) TYPE 52 SPRING-LOADED HAND IC INSERTION TOOL. Picks D.I.P.'s out of package, automatically squeezes them to fit hole pattern, ejects them when firmly placed on board. Lightweight and comfortable. ½ lb.
809-4425. 1-4 .....**Each 13.00**
5-Up .....**Each 10.40**

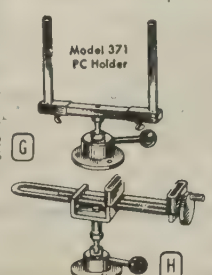
TYPE 62A6 PANA-VISE ON VACUUM BASE. Holds to any non-porous surface. 62A4 and 62D. Pivots work 360° in any tangent to half a sphere any compound angle. Replaceable jaws. Shpg. wt. 4 lbs.
809-4464. 1-4.....**Each 28.57** **5-Up**.....**Each 24.29**



(E) TYPE 62A4 VACUUM BASE WITH PANA POSITIONER. Attaches and removes with flip of a lever. Cast aluminum base, neoprene holding pad. Mounted positioner holds fixtures with ⅝" shaft. Shpg. wt. 2½ lbs.
809-4461. 1-4 .....**Each 19.37**
5-Up .....**Each 16.47**

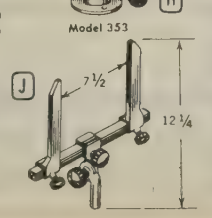


(F) TYPE 62 PANA-VISE WITH VERTICAL HEAD. Pivots work 360° in any tangent to half a sphere; achieves any compound angle. Base holds ⅝" stem. Replaceable jaws. 62A positioner and 62D head. Shpg. wt. 3½ lbs.
809-4451. 1-4 .....**Each 22.88**
5-Up .....**Each 19.45**



(G) TYPE 371 PRINTED CIRCUIT BOARD HOLDER. Mounts on Midget "PowRarm" No. 345 (supplied). Brackets adjust horizontally 3" to 6". V-grooved vertical posts (⅛" wide, 3/16" deep). Shpg. wt. 2 lbs.
988R7371 .....**Each 23.96**

(H) TYPE 353 ELECTRONICS VISE. Mounts on Midget "PowRarm" No. 345 (supplied). Jaws rubber wrapped. Heavy-gauge steel with double slide bar—adjusts to 6½" with crank handle. Shpg. wt. 3 lbs.
988-7353 ..... **Each 30.51**



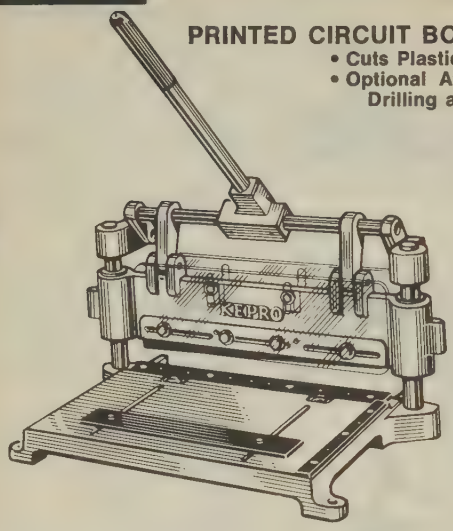
(J) TYPE 62H DELUXE 7" PC BOARD HOLDER. Holds any shape board. Turns surface 360°. Spring tension arm. Use with 62A, 62A4. Wt. 1¼ lbs.
809R4498. 1-4.....**Each 19.29**
5-Up .....**Each 16.40**

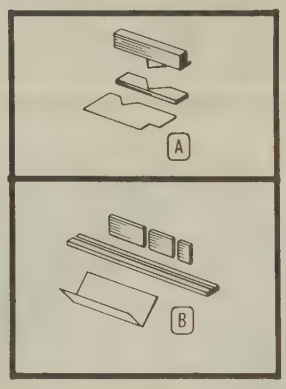
TYPE 62A PANA POSITIONER. Pivots a full 360°. Single lock holds ⅝" fixture. 5" wide x 4" high. Shpg. wt. 2 lbs.
809-4457. 1-4.....**Each 13.69**
5-Up .....**Each 11.64**

Printed Circuit Boards, Tools and Equipment

PRINTED CIRCUIT BOARD/SHEET METAL SHEAR

- **Cuts Plastic to 3/32" Thick, Sheet Metal to .040"**
- **Optional Attachments for Punching, Notching, Drilling and Bending**





MULTI-6 MS-6. A bench-top hand tool that will perform a variety of circuit board and sheet metal fabricating functions. Basically for cutting clad or unclad plastic materials such as G-10 glass epoxy, XXXP phenolic, FR-3 paper-base epoxy and mat polyesters up to 3/32" thick or sheet metals up to .040" thick. Only 15" wide and 13" deep, but will shear panels up to 12" wide. With squaring gauge and adjustable back length gauge. Shpg. wt. 24 lbs.

835-0218. 1-3.....**Each 197.90** **4-Up**.....**Each 168.27**

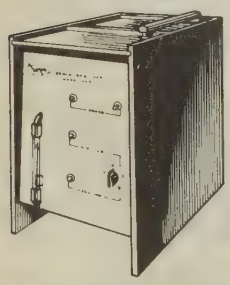
Ⓐ **MODEL NA-1 NOTCHING ATTACHMENT.** Mounts on pressure rail of shear for use in cutting corner notches of up to 1" by 1" in laminate materials up to 1/16" thick. Shpg. wt. 3 lbs.

835-0239. 1-3.....**Each 70.00** **4-Up**.....**Each 56.39**

Ⓑ **MODEL PB-1 PRESS BRAKE ATTACHMENT.** Forms 90° bends in soft aluminum up to 18 gauge or sheet metal steel up to 22 gauge. Set includes one 12" brake die section, three brake rails for sections up to 6" long. Shpg. wt. 3 lbs.

835-0280. 1-3.....**Each 58.87** **4-Up**.....**Each 42.00**

MULTI-USE BENCH-TOP SPRAY ETCHER



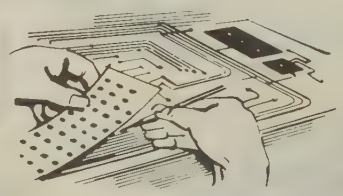
MODEL BTE-202. Construction material compatible with all commonly used chemistry. Etch single or double-clad copper PC boards in less than 3 minutes. Etch nameplates or chem-milled parts. Adaptable lift-out racks take rigid panels up to 12"x12" or thin flexible materials. Non-warping transparent lift-up cover permits constant observation. All power is cut when cover is lifted, to protect operator. 4 gal. capacity chamber empties and loads easily. Front-panel controls: function switches with pilots, heater cycling timer, liquid level sight gauge. 115/120 VAC, 15 amp. 60 cycles. Complete with 1000 watt Titanium heater, two pumps. Wt. 60 lbs.

835-1032. 1-3....**Each 528.42** **4-Up**....**Each 495.22**

STANDARD ETCHED CIRCUIT KIT

S-101A. Produces basic circuit patterns. Liquid or pressure-sensitive tape resists are applied directly to copper-clad boards, then etched. Perforated copper-clad panel speeds component mounting. Includes materials for completely processing three single-clad panels, perforated copper-clad panel. 3x6". Shpg. wt. 2 lbs.

835-0689. 1-9..**Ea. 7.73** **10-Up**..**Ea. 6.18**



ETCHED CIRCUIT COPPER-FOIL CLAD MATERIALS

- **Available Photosensitized or Unsensitized**
- **Precision-Cut to 1-oz. or 2-oz. Specs.**

Laminated 1-oz. (.00135) and 2-oz. (.0127) copper-clad materials. Available in 1/16" XXXP paper base phenolic and G-10 glass epoxy with foil on two sides, except types marked with *, clad one side only. Meet NEMA grade tolerances. Supplied unsensitized for screen processed parts and photosensitized for photo processed boards. Photosensitized materials are ready for exposure with no further sensitizing required.

1/16" XXXP PAPER BASE PHENOLIC (.00135) 1 OZ.

UNSENSITIZED

Stock No.	Mfr's Type	Wt. per package	Size	PER PKG. OF 5			
				1-4	5-9	10-19	20-Up
835-0306	P1-365*	1 lb.	3x6"	3.95	3.16	2.64	2.24
835-0312	P1-465*	1 lb. 3 oz.	4x6"	5.28	4.22	3.52	3.00

PHOTOSENSITIZED

Stock No.	Mfr's Type	Wt. per package	Size	PER PKG. OF 5			
				1-4	5-9	10-19	20-Up
835-0509	S1-365*	11 oz.	3x6"	6.60	5.28	4.41	3.75
835-0517	S1-465*	1 lb. 6 oz.	4x6"	8.90	7.12	5.95	5.06
835-0533	S1-7105*	1 lb. 14 oz.	7x10"	17.95	15.80	13.16	11.38

1/16" G-10 GLASS EPOXY 1 OZ. (.00135)

UNSENSITIZED

Stock No.	Mfr's Type	Wt. per package	Size	PER PKG. OF 5			
				1-4	5-9	10-19	20-Up
835-0309	P1-365G*	1 lb.	3x6"	7.48	5.98	4.99	4.25
835-0315	P1-465G*	1 lb. 2 oz.	4x6"	10.00	8.00	6.68	5.68
835-0321	P1-12125G	3 lbs. 6 oz.	12x12"	39.55	34.80	29.00	25.08
835-0361	P2-12125G	3 lbs. 10 oz.	12x12"	39.55	34.80	29.00	25.08

PHOTOSENSITIZED

Stock No.	Mfr's Type	Wt. per package	Size	PER PKG. OF 5			
				1-4	5-9	10-19	20-Up
835-0513	S1-365G*	1 lb.	3x6"	10.68	8.54	7.13	6.06
835-0520	S1-465G*	1 lb. 2 oz.	4x6"	10.60	9.33	7.74	6.70
835-0528	S1-665G*	1 lb. 6 oz.	6x6"	15.90	13.99	11.66	10.08
835-0537	S1-7105G*	2 lbs. 2 oz.	7x10"	29.00	25.52	21.25	18.38
835-0546	S1-12125G*	3 lbs. 6 oz.	12x12"	56.40	49.63	41.36	35.78
835-0561	S2-365G	1 lb.	3x6"	12.75	10.20	8.52	7.24
835-0569	S2-465G	1 lb. 3 oz.	4x6"	12.65	11.13	9.28	8.00
835-0577	S2-665G	1 lb. 6 oz.	6x6"	18.95	16.68	13.90	12.05
835-0590	S2 7105G	2 lbs. 2 oz.	7x10"	34.65	30.49	25.43	22.02
835-0597	S2-12125G	3 lbs. 10 oz.	12x12"	67.40	59.31	49.41	42.79

1/16" G-10 GLASS EPOXY 2 OZ. (.0027)

UNSENSITIZED

Stock No.	Mfr's Type	Wt. per package	Size	PER PKG. OF 5			
				1-4	5-9	10-19	20-Up
835-0388	P12-465G*	1 lb. 6 oz.	4x6"	10.13	8.10	6.76	5.75
835-0391	P12-12125G*	3 lbs. 11 oz.	12x12"	40.20	35.38	29.48	25.49
835-0406	P22-12125G	3 lbs. 13 oz.	12x12"	46.65	41.05	34.23	29.59

PHOTOSENSITIZED

Stock No.	Mfr's Type	Wt. per package	Size	PER PKG. OF 5			
				1-4	5-9	10-19	20-Up
835-0613	S12-365G*	1 lb. 2 oz.	3x6"	10.90	8.72	7.28	6.19
835-0617	S12-465G*	1 lb. 8 oz.	4x6"	14.53	11.62	9.70	8.25
835-1015	S12-665G*	2 lbs. 4 oz.	6x6"	16.20	14.26	11.88	10.27
835-0620	S12-7105G*	1 lb. 9 oz.	7x10"	29.60	26.05	21.74	18.80
835-0623	S12-12125G*	3 lbs. 11 oz.	12x12"	57.65	50.73	42.28	36.60
835-0628	S22-465G	1 lb. 8 oz.	4x6"	14.25	12.54	10.47	9.04
835-0632	S22 665G	1 lb. 1 oz.	6x6"	21.40	18.83	15.66	13.54
835-1018	S22-7105G	2 lbs. 14 oz.	7x10"	39.05	34.36	28.64	24.77

USE ONLY KEPRO OR KODAK CHEMICALS ON THESE BOARDS. SEE NEXT PAGE FOR LISTING OF CHEMICALS.

NAMEPLATE, PANEL, ENAMEL KITS

- **Step-by-Step Instructions**
- **All Materials Included**
- **Professional Results**
- **Need No Elaborate Equipment**

NP-404 ANODIZED ALUMINUM NAMEPLATE AND PANEL KIT. All materials needed to produce detailed aluminum lettering on a black anodized panel. Includes pressure-sensitive opaque letters and numerals; three 3x6" plates; accessories; etching solutions. Shpg. wt. 1½ lbs.

835-0241. 1-9.....**Each 11.50** **10-Up**.....**Each 7.65**

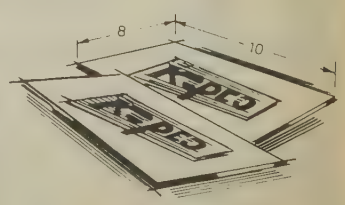
835-0067. Type D-1QT Developer. 1 Quart. **1-5**...**Each 6.60** **6-Up**...**Each 5.28**

NAMEPLATE KITS

NP-303A ENAMEL KIT. All materials, including pressure sensitive opaque letters and numerals in 3 fonts. Photosensitized blue aluminum plates require only development, no fixing. With two 8"x 10" aluminum plates, accessories and solutions. Ship. wt. 1 lb.

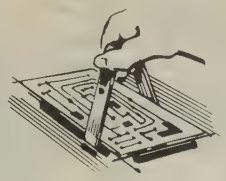
835-0240. 1-9.....**Each 12.65**

10-Up.....**Each 8.45**



Etching Kits, Test Clips, Silicone Compounds

IMMERSION TIN PLATING KIT

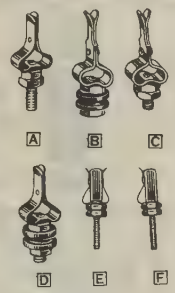


ITP-801. Immerse etched PC boards in electroless tin solution for 5 minutes. Oxide-free copper surface of boards obtain a tin plating approx. .00002″ thick. Plastic tong handles panels to 7″ wide. Complete with thermometer, heat resistant tray for heating solution to 150°F, sufficient solution to tin plate approx. 25 sq. ft. of etched circuit boards. Heat with burner or electric plate, not supplied. Shpg. wt. 10 lbs.
835-0161. 1-9 .... Ea. 15.38 10-Up ..... Ea. 13.08

STANDARD, MINIATURE & ULTRAMINIATURE TEST CLIPS

Nickel-plated brass and steel. **Type 2-0:** for panels ¼″ thk., 8-32 mtg. stud; **Type 2-4:** as above; has insulated washers. **Type 2-20:** for up to ¼″ panels, has 6-32 stud. **Type 2-24:** as 2-20; has insulated washers. **Type 2-41:** single clip for 3/16 x 1/8″ panel. **Type 2-42:** double clip for ¼ x ⅛″ panel. **2-41, 2-42** have ⅜″ 2-56 mtg. stud.

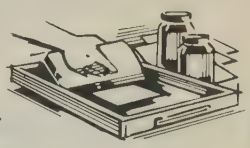
Stock No.	Mfr's Type	Fig.	Total Lgth.	EACH 1-24	EACH 25-Up
STANDARD					
801-0001	2-0	C	1.56″	.60	.40
801-0004	2-4	B	1.56″	.90	.60
MINIATURE					
801-0020	2-20	A	1.13″	.60	.40
801-0024	2-24	D	1.50″	.90	.60
ULTRAMINIATURE					
801-0042	2-42	E	.79″	.68	.45
801-0041	2-41	F	.79″	.60	.40



ETCHED CIRCUIT PROCESSING CHEMICALS AND PHOTO LAYOUT SUPPLIES

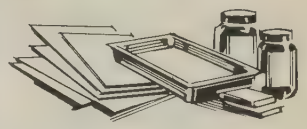
Stock No.	Type	Description	Size	EACH
835-0497	RMP-700A	Resist Marking Pen	.....	1.88
835-0487	R-1PT	Paint Resist (for unsensitized sheet)	16 oz.	6.15
835-0730	T-1PT	Resist Thinner	16 oz.	5.25
835-0060	D-1G	Developing Solution (for sensitized sheet)	gal.	9.92
835-0108	E-1QT	Etching Solution — Ferric chloride	qt.	5.18
835-0105	E-1G	Etching Solution — Ferric chloride	gal.	8.48
835U0116	E-5G	Etching Solution Ferric chloride base	5 gal.	18.38
835-0128	EP-1G	Etching Powder — ammonium persulfate	1 gal.	6.75
835-0139	EP-5G	Etching Powder — ammonium persulfate	5 gal.	11.77
835-0486	PRS-1QT	Photo Resist Stripper	qt.	7.80
835-0485	PRS-1G	Photo Resist Stripper	gal.	18.38

SILK SCREEN PRINTING KIT



SC601A. Photo silk screen kit includes materials to produce one silk screen with print area to 7x9″ plus silk and film emulsion for two additional patterns. Produces lacquer resistant film type photo stencil. No dark room required. With squeegee, mounting hinges, black and white inks. For screen-printing etched circuit boards, nameplates, instrument panels, decorative prints. Wt. 25 lbs.
835U0715. 1-9 .... Ea. 45.59 10-Up ..... Ea. 38.77

PHOTO REVERSING KIT



FK-701. Two easy steps prepare line negatives and positives from taped or ink artwork; or to reverse existing negatives and positives. Needs no darkroom, tanks or trays. Includes two pieces of reversing film 10x24″, plus all processing chemicals necessary. Shpg. wt. 1½ lbs.
835-0154. 1-9 . Ea. 14.03 10-Up . Ea. 11.22

RF-1024. EXTRA PHOTO REVERSING FILM. For use with above. Size: 10″x 24″. Shipping weight 8 oz.
835-0488. 1-9 Ea. 6.00 10-Up Ea. 4.80

RFD-1PT. EXTRA PHOTO REVERSING FILM DEVELOPER. For use with kits listed above. Ship. wt. 1 lb.
835-0492. 1-9 Ea. 5.63 10-Up Ea. 4.50

PROFESSIONAL ETCHED CIRCUIT KIT

P-101A. Etched circuit kit utilizes photo engraving process to produce professional-quality etched circuits. Negative of layout can be produced photographically or mechanically with materials supplied. A sensitized sheet of XXXP phenolic copper-clad is exposed through your prepared negative, then developed and etched. Includes materials for completely processing three single-clad panels, one 3x3″ and two 3x6″. Shpg. wt. 3 lbs.
835-0475. 1-9 . Ea. 11.40 10-Up . Ea. 9.12

P-101A-G PROFESSIONAL ETCHED CIRCUIT KIT. As above, but G-10 glass epoxy boards instead of XXXP paper-base phenolic boards. Shpg. wt. 3 lbs.
835-0480. 1-9 ..... Each 14.40 10-Up ..... Each 11.52

RTV CARTRIDGE PACK

Speeds up production-line sealing. Type RTV 102 white silicone rubber, excellent for shock-mounting. Type 108 translucent silicone rubber, for use where "see-through" is required. Need no catalyst. Apply at room temp. Use with any standard caulking gun, or automatic dispenser.

Stock No.	RTV Type	Oz. per Unit	Color	EACH 1-11	EACH 12-47	EACH 48-Up
798-0205	102	12	White	5.88	4.70	3.92
798-0214	108	12	Trans.	5.88	4.70	3.92

SILICONE RUBBER ADHESIVE/SEALANTS IN SQUEEZE TUBES

- **Simple, Fast Application**
- **Complete—No Catalyst Needed**
- **Never Harden, Crack or Dry Out**
- **Resist Extreme Temperature Variations**

Easily applied and air cured to form a durable, flexible silicone rubber. Need no catalyst. Applied at room temperature, adhere without priming. For use as insulation, bonding silicone rubber parts to metal surfaces, encapsulating, many other uses. Withstand −75°C to +300°C. Resist moisture, weathering and aging. No solvents and cures with a minimum of shrinkage. Electrical properties. Note: see charts above for applications and specifications.

Type RTV-	3-Oz. Tube Stock No.	EACH 1-11	EACH 12-47	EACH 48-Up
102	798R0203	3.07	2.46	2.05
103	798R0206	3.07	2.46	2.05
108	798R0212	3.08	2.46	2.05
106	798R0210	4.28	3.42	2.86
112	798R0216	4.28	3.42	2.86

Type RTV-	12-Oz. Tube Stock No.	EACH 1-11	EACH 12-47	EACH 48-Up
102	798R0204	11.82	9.46	7.90
103	798-0208	11.82	9.46	7.90
108	798R0213	11.83	9.46	7.90
106	798-0211	14.50	11.60	9.69
112	798-0217	14.50	11.60	9.69

HIGH STRENGTH SILICONE RUBBER

TYPE RTV-154 GRAY COLOR

- **Cures to a High Strength Solid that Holds to any Surface**
- **Excellent Mechanical Qualities**
- **Encapsulating and Potting**
- **For Professional or Hobby Use**

Now you can easily affix any decorative object to any surface without the need of time consuming drilling and screws . . . provides fast, lasting attachment. 3 oz.
798R0219. 1-11 .. Ea. 7.06 12-Up .. Ea. 5.64

TYPE G-64 I HEAT SINK COMPOUND

- **Withstands Temperature Variations**
- **Maintains Positive Heat Seal**

Greaselike silicone material has heavily heat-conductive metal oxides, high thermal conductivity. Applies to base of mounting studs of components. Will not dry out, harden or melt. Withstands long term exposure to temperatures up to 200°C. Compound maintains positive heat seal and increases life expectancy and overall efficiency of circuit component. Evaporation, 1% after period of 24 hours at temperature of 200°C. 8-oz. container. Shpg. wt. 8 oz.
798R0111. 1-11 .. Ea. 6.50 12-Up .. Ea. 5.20

SILICONE GREASES AND COMPOUNDS

AVAILABLE IN 2 AND 8-OZ. TUBES

Applications ranging from special service lubricants to high-thermal conducting compounds for electronic components. Withstand temperatures from —100° to 450°F; won't smoke, melt or char. Odorless, colorless; apply direct from tube. Non-corrosive, water repellent. Won't solidify, oxidize, evaporate. No excessive bleed losses.

- **G-623** — Water repellent coating/seal.
- **G-624** — Excellent component insulator.
- **G-322** — Lubricant for slow oscillating or rotary motion applications.
- **G-341** — Bearing lubricant for use in adverse atmospheric environments.
- **G-351** — Bearing lubricant for extreme −40° to +400°F.

2-Oz. Tube Stock No.	Type	EACH 1-11	EACH 12-47	EACH 48-Up
798-0107	G-623	2.43	1.94	1.62
798-0100	G-322	3.03	2.42	2.02
798-0105	G-351	2.55	2.04	1.70

8-Oz. Tube Stock No.	Type	EACH 1-11	EACH 12-47	EACH 48-Up
798-0108	G-623	6.90	5.52	4.61
798-0110	G-624	7.35	5.88	4.91
798-0102	G-322	8.37	6.56	5.46
798-0104	G-341	7.95	6.36	5.31
798-0106	G-351	8.35	6.68	5.58

RTV SILICONE RUBBER SEALANTS/COMPOUNDS

- **Low and Medium Viscosities**
- **Encapsulating and Potting**

Black silicone, low viscosity liquid cures within 15-30 min. at 150°C, without air, with addition of curing agent. Forms tough, trans. solid. Temp. range: −65°C to +200°C. High dielectric strength. Compound and curing agent. One-pound can. Wt. 1 lb.
798-0604. 1-11 .. Ea. 15.88 12-Up .. Ea. 12.70

RTV-615 POTTING COMPOUND

Clear silicone, low viscosity liquid that cures at room temp., after addition of curing agent, to form a rubber-like, tough, transparent solid. Cures within 15-30 minutes at 150°C. Cures in absence of air. Temp. range: —65°C to +200°C. High dielectric strength. Compound and curing agent. One-pound can. Shpg. wt. 1 lb.
798-0218. 1-11 .. Ea. 18.78 12-Up .. Ea. 15.02

TYPE RTV-11 ENCAPSULANT

White, low viscosity silicone rubber base with excellent deep section curing characteristics. Shpg. wt. 1 lb.
798-0200. 1-11 .. Ea. 14.58 12-Up .. Ea. 11.66

TYPE RTV-41 ENCAPSULANT

White, medium viscosity silicone rubber base that cures readily in deep sections to high durometer, high strength rubber. Shpg. wt. 1 lb.
798-0201. 1-11 .. Ea. 11.62 12-Up .. Ea. 9.30

TYPE RTV-60 ENCAPSULANT

Red, medium viscosity silicone rubber base that cures readily in deep sections to a high durometer, high strength rubber. Has excellent high temperature resistance being usable for short periods to 600°C. Shpg. wt. 1 lb.
798-0202. 1-11 .. Ea. 11.63 12-Up .. Ea. 9.30

EXTRA HIGH STRENGTH RTV-630 SILICONE RUBBER MOLDING COMPOUND

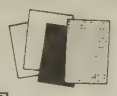
Extra high strength, blue molding compound that is excellent for short-run or prototype parts, thermoforming punch dies, intricate molding and embossing precise production of detail. Kit includes silicone rubber base compound (A) and catalyst (B). Cure by mixing 10 parts "A" to 1 part "B" by weight. May be used with automatic equipment. Ideal for production line.
798-0618. Shpg. wt. 16 oz. ..... **Each 17.53**

Larger Quantity Price Breaks Available on Request

Circuit Boards, PC Components, Lettering

CIRCUIT BOARDS AND PC COMPONENTS

A



B

A ARCHER® PERF BOARDS

- Accept Miniature Components
- 1/16" Thick for Easy Mounting
- Punched Phenolic Boards or Solid Copper-Clad Board

Ideal for modular construction. Phenolic and copper-clad boards for breadboards or printed circuits. 1/16" thick.

PATTERNS FOR PERF-BOARDS

Pattern	Grid Hole Centers	Hole Size Inch
A	.265x.265	3/32
B	.187x.187	1/16
C	.100x.200	1/16

PREPUNCHED PERF-BOARDS

Stock No.	Mfr's Type	Pattern	Size Inch	Each
910-6732	276-1582	A	3¾x6¾	.89
910-6733	276-1583	A	6¾x9¾	1.59
910-6710	276-1390	B	4½x5¾	.99
910-6711	276-1391	B	5¾x9	1.49
910-6712	276-1392*	C	4½x5¾	.99
910-6723	276-1393*	C	3¾x9	1.89

*Alternate Grid

SOLID COPPER-CLAD

Stock No.	Mfr's Type	Size Inch	Each
910-6737	276-1587	6¾x9¾	1.79

B SET OF 10 PUNCHED BOARDS

Wide variety of sizes and shapes make these punched boards useful for many applications. Hole sizes are 1/16" and 3/32"; straight and alternate grids. Sizes vary—1½"-3" sq. rectangular. ½ lb.
910-6725. Type 276-1575.....1.29

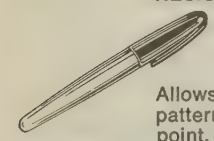
ARCHER® PRINTED CIRCUIT KIT HAS EVERYTHING YOU NEED

This kit contains everything you need to design and make printed circuit boards. Two printed circuit boards, resist ink pen, 6-oz. bottle of etchant. 2-oz. bottle of resist ink solvent, 1/16" drill bit. 7⅛x5⅛x2" plastic box. Ship. wt. 2 lbs.
910-6726. Type 276-1576.....6.95

SET OF 5 SINKS

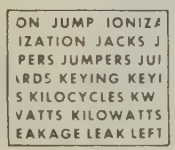
Draws heat away from components while soldering. 2½" aluminum with magnet base; 1⅜" and 2½" straight and bent jaws. Shpg. wt. 4 lbs.
910-6703. Type 276-001.....1.39

RESIST MARKING PEN



- Fast Drying Black Ink
- Fine Point Marks Easily
- With Handy Pocket Clip

Allows you to draw and design your own PC patterns directly on copper-clad boards. Fine point, black ink. Shpg. wt. 2 oz.
910-6717. Type 276-1530 .....Each 1.19



ELECTRONIC WORDS MARKIT®

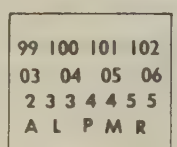
An electronic glossary that lists over a thousand words from "AC" to "zooms" in alphabetical order. Easily applied to control panels, prototypes, drawings, terminal boards, electrical and mechanical components. Wt. 8 oz.

Stock No.	Mfr's Type	Description	Color	EACH 1-4	EACH 5-Up
566R1080	EM-1	Electronics	Black	9.63	7.70
566R1081	EM-1 W	Glossary	White	9.63	7.70

DIAL MARKING KIT

Contains dial patterns; arcs, wedges, lines, dots, switch symbols, graduation lines, lines for rotary tap switches, potentiometers and calibrated meter dials. Ship. wt. 8 oz.

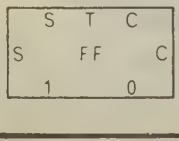
Stock No.	Mfr's Type	Description	EACH 1-4	EACH 5-Up
566R1060	DM-1	Dial Patterns	9.63	7.70



TERMINAL AND CHASSIS MARKIT®

Book contains numbers (thru 200, 1 thru 0 and 01 thru 09) plus complete alphabets. Has 15 black pages and 12 white pages. All numbers ⅛" high. Application in prototype, production. 8 oz.

Stock No.	Mfr's Type	Description	EACH 1-4	EACH 5-Up
566R5010	TC-1	Markit	9.63	7.70
566-5011	TC-1-12	White	9.63	7.70

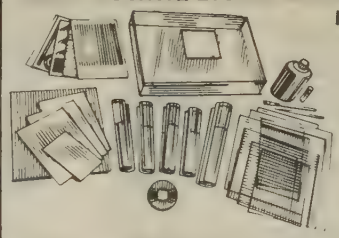


LOGIC AND SYMBOLS MARKIT®

Contains flip flops, arrows, arrow heads, time delays, and nand, or nor, registers, shift registers, connection dots, Schmidt triggers, single shots. Ship. wt. 8 oz.

Stock No.	Mfr's Type	Description	Color	EACH 1-4	EACH 5-Up
566-1070	LD-1	Diagram set	Black	9.63	7.70

DIRECT POSITIVE ETCHED CIRCUIT KIT



Type 32XA. Produces sharp, detailed etched circuits in 1 hour. Uses direct positive—no negative needed, no photography. Make duplicate boards from one master artwork easily. 1-oz. copper-clad laminate is coated with photo-sensitive positive-action etch resist. Minimum undercutting with closable plastic box, plastic etching bags. Includes 2 artwork transparencies, transfer art, 5 boards, plastic box, etchant, developer, glass plate, mylar, mask-cutting film, tape, brush, ink, burnishing tool, grid paper.
977-1178. Wt. 1 lb. **1-4**.....**Ea. 29.24**
5-Up .....**Ea. 24.95**

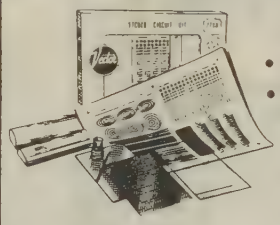
PRINTED CIRCUIT ETCHANT SOLUTION

16 FL. OZ.

- Takes Copper Off Perfboard . . . Completely!
- Safe, Easy & Fast to Use

A PC "must" for hobbyists, builders, experimenters! A special ferric chloride solution removes copper completely without damage to board material. Shpg. wt. 1½ lbs.
910-6715. Type 276-1535 .....Each 1.69

ETCHED CIRCUIT KIT

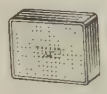


- Easy to use rub-on transfer method
- Comes complete with instructions

Type 27XA. "Vectoresist" rub-on transfer resist sheet with lines, dots and connector pattern. Replaces conventional tapes and liquid resists. Includes: two 4½x6½" 1-side copper-clad XXP phenolic; 10x15" Vectoresist sheet; 2 bags of dry etchant; activator in etching bag; layout paper; instructions.
977-1162. Wt. 1¼ lbs. **1-9 Ea. 11.98 10-Up Ea. 9.58**
977-0772. Type R332 Vectoresist Sheet. Replacement 10x15" rub-on transfer resist sheet with assorted line widths, dots, circles and 44 contact. .156" spaced connector pattern. Wt. 2 oz.
1-9 .....**Each 4.73 10-Up** .....**Each 3.78**

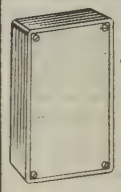
EXPERIMENTER'S "P-BOX"

- Parts Mount without Cutting Tools • Removable Lid
- Withstands Soldering Heat



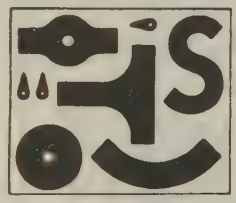
Withstands soldering heat. Gray perforated work base has 3/32" diameter holes. Removable transparent lid with self-locking hinge. 4⅝ x 3⅝ x 1½". 4 oz.
910-6115. Type 270-105 Each .99

PERFBOX® WITH PANEL



- Build Professional Projects without Cutting or Drilling
- Predrilled Speaker Grill

Removable perfboard front for easy component wiring; ¼" dia. hole in side serves as outlet for speaker wire, line cord or harness. Rear predrilled for 2¼" or other speaker. Hole dia., .062". Bakelite case, 3¾ x 6⅛ x 2". Wt. 1½ lbs.
910-6105. Type 270-097. . .Each 2.39



PRINTED CIRCUIT PADS MARKIT®

Type PC-1 (Black). Thousands of printed circuit pads: circles (with center hole), teardrops, teardrops (with vanishing point), double end teardrops, double end teardrops (with vanishing points), elbows, elbows (terminal), T-connectors, fillets, ovals. Quick and easy to apply. Wt. 3½-oz.
566-1362. 1-9 Ea. 9.63 10-Up Ea. 7.70

FOUR-STEP METHOD—SIMPLE AND QUICK

1. After folding away the backing sheet, position the letter, number or symbol exactly where you want it.
2. Burnish lightly with a pen or pencil.
3. Peel away the carrier sheet.
4. Burnish with backing sheet.

COMPLETE ALPHABET AND NUMBER MARKIT®

Each MarKit has 27 3x6" looseleaf pages bound by a plastic spiral ring. Special wax-free adhesive assures permanence. Letters or number in Black or White, in 4 sizes: ⅛", ¼", ⅜", ½". For a multitude of uses in electronics: chassis, prototypes, production. Wt. 3½ oz.

NUMERALS

Stock No.	Mfr's Type	Color	Size	EACH 1-4	EACH 5-Up
566R1110	NM-1	Black	⅛	9.63	7.70
566R1111	NM-1W	White	⅛	9.63	7.70
566R1115	NM-2	Black	¼	9.63	7.70
566-1116	NM-2W	White	¼	9.63	7.70
566-1120	NM-3	Black	⅜	9.63	7.70

ALPHABET

Stock No.	Mfr's Type	Color	Size	EACH 1-4	EACH 5-Up
566R1010	AM-1	Black	⅛	9.63	7.70
566R1011	AM-1W	White	⅛	9.63	7.70
566R1015	AM-2	Black	¼	9.63	7.70
566-1016	AM-2W	White	¼	9.63	7.70
566-1020	AM-3	Black	⅜	9.63	7.70

Chemicals and Service Aids

CEMENTS & GLUES

Type 45-2 General Purpose Cement. For bonding porous or semi-porous materials. Fast drying, waterproof.
796-2065. 2 oz. . . . . **Each 1.25**
Type 32-2A Plastic Cement. Perfect for all plastics: acetates, butyrates, vinyls, phenolics.
796-3630. 2 oz. . . . . **Each 1.25**
Type 43-2 Plywood Cement. Tough and resilient. Bonds almost any surface.
796R3640. 2 oz. . . . . **Each 1.25**
Type 30-2 Radio TV Service Cement. Formulated for radio-TV speaker and general shop use.
796R3625. 2 oz. . . . . **Each 1.25**
Type 34-2S All-Purpose Electronic Cement. Use indoors or outdoors.
796-2055. 2 oz. . . . . **Each 1.25**

MIRACLE ADHESIVES

Won't shrink or expand through curing. Resist acid, alkali, grease, gas, water, solvents, fungus, temperature change. Possesses excellent dialectric properties. Simple, fast application. Cures to a high strength solid that holds to practically any surface. Suitable for a wide variety of applications in commercial, military or hobby uses. Strong enough for industry, simple enough for home.
Type 347 Epoxy Glue. Specified by N.A.S.A. for use in its space program. Super grip, fast set. A drop holds tons.
796-2098. 2 oz. tubes of resin and hardener. . . . . **Per Pkg. 4.55**
Permabond. Up to two tons holding power in seconds. Ready to use —no mixing, no clamping, no mess.
796R2010. Type 10-120.
2 gms. **2.48**
796R2012. Type 10-122.
⅓ oz. **5.38**
796R2013. Type 10-123. 1 oz. **9.85**

CLEANERS

Type 8666 Spra Kleen. Eliminates noise due to dust, dirt, corrosion. Cleans, lubricates parts quickly.
796R8666. 3 oz. aerosol. . **Ea. 1.98**
796-8676. Type 8666-16.
16 oz. **3.93**
Type 8670-6 Jif. Siliconized contact-control cleaner that also lubricates and provides longest protection possible. Contains no solvents. 6 oz.
796R8670 . . . . . **Each 3.25**
Type 8669 Dry Clean. Cleans contacts, relays and other devices. Leaves no deposits. Excellent degreaser.
796R8669. 16 oz. aerosol. **Ea. 4.20**
Type 8682 Relay-Kleen. Cleans relays, contacts and other electronic devices where no oily, residual deposits are desired. Excellent degreaser, general solvent for gummy deposits on all electrical gear.
796R8662. 6 oz. aerosol. **Ea. 3.40**
796R8683. Type 8682-16.
16 oz. **6.35**
Type 10-G Electro-Tet Cleaner. Removes grease, dirt, wax, oils and tars. Made with Chlorothene, one of the least toxic chlorinated solvents.
796-2000. 1 gallon can. . **Ea. 13.63**
Type 213-16 Chloro-Kleen. Powerful solvent for all purpose cleaning.
796-3680. 16 oz. bottle. . . **Ea. 3.55**
Type 11-G Kleen-Tex Cleaner. High flash point. Removes grease, oil.
796-2020. 1 gallon can. . **Ea. 7.68**
Type 9082 Glass & Plastic Cleaner. Wipes dust, dirt from glass, plastic.
796-9082. 14 oz. aerosol. **Ea. 2.55**
Type 10-620 Audio-Video Tape Head Cleaner. Safe for all types heads.
796R3600. 16 oz. aerosol. **Ea. 4.63**
Type 53-2 Mag-Netic Head Cleaner. Removes oxide/dirt from recorders.
796-3650. 2 oz. bottle. . **Each 1.90**
Type 26-2 Strip-X. For removal of wire insulation coatings.
796R3620. 2 oz. bottle. **Each 1.58**

PRINTED CIRCUIT SOLDERING CHEMICALS

Type 21-1 Silver Print. Draw or repair printed circuits. Made of pure silver. Air drying.
796-2035. ½ troy oz. bottle. . . . . **Each 11.79**
Type 20-2 Copper Print. For PC touch-up work.
796-2030. 2 oz. bottle. . . . . **Each 4.13**
Type 12-2 Print-Kote Solder Flux. Non-corrosive.
796-2025. 2 oz. bottle. . . . . **Each 1.25**
Type 42-2 Liquid Solder Flux. Non-corrosive.
796-2063. 2 oz. bottle. . . . . **Each 1.13**
Type 1207 Soldering Paste. Fast acting fluxing base for PC work. Non-corrosive.
796-1207. 1½ oz. can. . . . . **Each 1.25**
Type 8101-S Transistor Silicon Compound. For efficient transistor heat transfer to chassis.
796R8101. 1 oz. tube. . . . . **Each 4.38**
Type 8109-S Silicone Heat Sink Compound. Lowers overall temperature level of electronic devices.
796-8109. 1 oz. tube. . . . . **Each 4.88**

INSULATING CHEMICALS

Type 50-2 Red-X Corona Dope. Silicone base, red enamel compound.
796-2068. 2 oz. bottle. . **Each 1.90**
796R3645. Type 50-12. 16 oz. **5.40**
Type 90-2 Red GLPT Insulating Varnish. Alkyd base. Heat resistant.
796R3670. 2 oz. Bottle. **Each 1.33**
Type 8665 Koloid-Clear Acrylic Plastic. Acrylic, ester resin base.
796-8665. 16 oz. aerosol. **Ea. 3.30**

THINNERS AND SOLVENTS

Type 28-2 Cement Thinner. Thins Radio-TV Service Cement and all other lacquer base adhesives. Will not affect adhesive quality.
796-2050. 2 oz. bottle—**Each 1.08**

Alec Electron

Type 56-2 Insulating and Dipping Varnish. Produces a smooth, tough, non-corrosive film. For field coils, transformer choke coils.
796-2069. 2 oz. bottle. . **Each 1.25**
Type 41-2 Polystyrene Q-Dope Thinner. Formulated for thinning polystyrene base coil dopes and cements. Can be used for cementing polystyrene.
796-2060. 2 oz. bottle. . **Each 1.08**

LUBRICANTS

Type 9400 Electronic Oils. Highly refined lubricant in dispenser vials. The right oil for any need.
796-9400. Assort./6. **Per Pkg. 6.35**
Type 9410 Teles-Oil. Light lubricating oil containing anti-oxidation and non-foaming additives. 7" spout.
796-9410. 4 oz. bottle. . . . **Ea. 2.15**
Type 10-600 Sili-Spra. High quality silicone lubricant. Leaves no residue build-up.
796R3599. 6 oz. aerosol. **Ea. 2.53**
Type 10-700 Formula 70. Formulated to penetrate rust and "free" frozen parts. Hundreds of applications.
796-3605. 16 oz. aerosol. **Ea. 3.93**
Type 23-2S Lubriplate. Grease type super lubricant reduces friction loss, prevents rust and corrosion.
796-2040. 1¾ oz. tube. **Each 1.50**
Type 26-01S Tunerlub. Restores a smooth, positive action to TV tuners.
796-2045. 1¾ oz. tube. . **Each 1.83**

CIRCUIT COOLERS

Type 10-702 Extra Dry Super Freeze Mist. Cools circuits 3 times faster. Locates bad capacitors, transistors and oxidized joints by instantly cooling components. Non-toxic, odor-free, leaves no residue.
796-3610. 15 oz. aerosol. **Ea. 4.55**
Type 8667 Zero-Mist Circuit Cooler. Locates "intermittence" in electronic equipment caused by overheating of components. Cools components instantly pinpointing faulty capacitors, transistors, oxidized joints.
796R8667. 16 oz. aerosol. **Ea. 4.40**
Type 8668 Super Freeze Mist. Cools circuits instantly. Pinpoints bad capacitors, transistors, oxidized joints. Non-toxic, non-flammable. Leaves no liquid residue.
796R8668. 6 oz. aerosol. **Ea. 2.30**

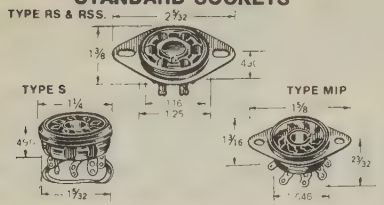
PAINTS AND FINISHES

Type 60-12 and -13 Wrinkle Varnish. Easy to use, professional looking air dry wrinkle varnish for use on test equipment, racks and chassis, panels, more. In aerosol cans.
796-2085. Black. 13 oz. **Each 4.13**
796-2086. Gray. 13 oz. . **Each 4.13**
Type 62-12 and -13 Satin Lacquer. Produces a high quality satin finish. Ideal for instruments, photographic equipment, test equipment. Aerosol cans.
796-2090. Black. 16 oz. **Each 3.80**
796-2091. Gray. 16 oz. . **Each 3.80**
Type 66-6 Dial Lite Coloring Kit. Instant drying, long lasting lacquer for coloring dial and signal lights. Colors: red, green, blue, amber, purple. Includes solvent.
796-2095 . . . . . **Each 4.13**
Type 46-975 Plastic Repair Kit. Contains everything necessary to repair plastic objects. Can be molded.
796-2075 . . . . . **Each 3.45**
796-2079. Plastic Powder.
45 gm. **1.73**
796-2080. Plastic Liquid. 2 oz. **1.73**

Higher Quantity Prices Available on Request

Sockets, Plugs, Multi-Purpose Connectors

STANDARD SOCKETS



TYPE S. This high-dielectric, molded bakelite socket comes with mount and retainer ring. It mounts in 1 11/16" keyed hole. Av. shipping weight is 5 oz.

Stock No.	Mfr's Type	Prongs	EACH 1-24	25-49	50-99	100-Up
713-2926	78S4	4	.41	.33	.26	.23
713R2934	78S8	Octal	.41	.33	.26	.23
713-2939	78S11	11	.53	.42	.34	.30

TYPE RS. Same as Type S, except it comes equipped with a removable mounting plate. Mounts in 1 11/64" hole and has slotted mounting holes to fit centers from 1/2" to 1 7/8". Av. shipping weight is 5 oz.

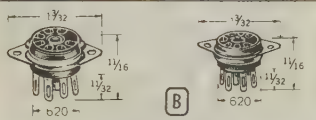
713-2911	78RS5	5	.52	.42	.33	.31
713R2914	78RS8	Octal	.52	.42	.33	.31
713-2923	78RS11	11	.69	.55	.44	.41

TYPE RSS. This ultra-low-loss steatite socket is excellent for high frequency transmitting equipment. Universal type and has removable mounting plate with slotted holes 1 1/2" to 1 7/8". Mounts in 1 1/4" hole. Av. wt. 5 oz.

713-1311	49RSS4	4	1.63	1.30	1.04	.86
713-1312	49RSS5	5	1.64	1.31	1.05	.87
713-1316	49RSS8	Octal	1.79	1.43	1.15	.95

TYPE M1P. Has bakelite body with molded-in steel plate. *Mounts in 1 1/8" hole; mounting centers, 1 5/16"; all others have 1 1/2" mounting centers. §Requires 1 33/32" hole. ‡Mica-filled bakelite. Avg. shpg. wt. 2 oz.

Stock No.	Mfr's Type	Prongs	EACH 1-24	25-49	50-99	100-Up
713-2800	77MIP4§	4	.40	.32	.26	.24
713-2803	77MIP5§	5	.43	.34	.28	.27
713R2810	77MIP8§	Octal	.43	.34	.28	.27
713R3700	88-8*	Octal	.50	.40	.32	.31
713-2809	77MIP8T§‡	Octal	.46	.37	.29	.28
713R2815	77MIP11§	11	.51	.41	.33	.31
713-2816	77MIP11T‡	11	.61	.49	.39	.37
713-2821	77MIP20§	20	1.15	.92	.74	.71



MINIATURE TUBE SOCKETS, SHIELDS, BASES

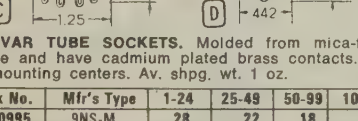
7-pin sockets, shield bases mount on 7/8" ctrs.; sockets require 5/8" hole. 9-pin sockets, shield bases mount on 1 1/8" ctrs.; sockets require 3/4" hole. Strap nuts are curved strips with 2 threaded holes that take place of 2 nuts in mounting miniature sockets. Diameter of rivet holes: .098". Molded castings are type MFE material. Meet **JAN/MIL TS-102P01.** Wt. 1 oz.

(A) TOP-MOUNTING SOCKETS

Stock No.	Mfr's Type	Description	1-24	25-49	50-99	100-Up
750-0900	7AB1	7-pin black bakelite	.28	.22	.18	.15
750-0980	9AB	9-pin black bakelite	.28	.22	.18	.15

(B) BOTTOM-MOUNTING SOCKETS

750-0902	7EB	7-pin mica-filled bakelite	.23	.19	.15	.13
750-0983	9EB	9-pin black bakelite	.28	.22	.18	.15
750-0984	9EM	9-pin mica-filled bakelite	.31	.26	.20	.18



(C) NOVAR TUBE SOCKETS. Molded from mica-filled bakelite and have cadmium plated brass contacts. Has 1 1/2" mounting centers. Av. shpg. wt. 1 oz.

Stock No.	Mfr's Type	1-24	25-49	50-99	100-up
750-0995	9NS-M	.28	.22	.18	.16

(D) NUVISTOR 5-PIN TUBE SOCKETS. Screw mount subminiature 5-pin sockets designed for nuvistor tubes. Made of Type MFE, low-loss phenolic insulation; saddle of cold rolled steel, cadmium-plated. Contacts are copper alloy and cad-plated. Average shipping weight is 1 oz.

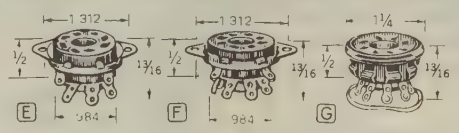
750-0878	5NS-1	.48	.38	.30	.27

SADDLE OCTAL SOCKET

TYPE 168-015. Bakelite body with steel plate. For 1" dia. hole; 9/64" mtg. holes on 1 5/16" ctrs. Mounts from below chassis. 5 oz.

713R5588. 1-24 .....Each .55 25-49 .....Each .44
50-99 .....Each .35 100-Up .....Each .26

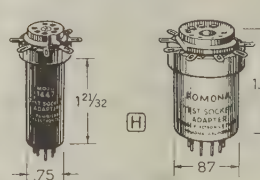
BAKELITE AND CERAMIC OCTAL SOCKETS



Saddle types have 4 ground lugs. Fig. **E**: 1 1/2" cntrs, clinch-on steel saddle, 1 1/8" d. Fig. **F**: 1 5/16" cntrs, press-on saddle, 1" d. Fig. **G**: 1 11/64" d., have keyway and retaining ring 8RO. 8AP permits rivet mtg. of Fig. G types. Mtg. col. is rivet hole dia. or chassis thickness. 1 oz.

Stock No.	Mfr's Type	Fig.	Description	Mtg.	EACH 1-9	10-24	25-49	50 Up
750-0955	8EB	E	Black	.143"	.28	.23	.18	.15
750-0950	8AB	F	Black	.136"	.28	.23	.18	.15
750-0951	8AM	F	Mica-filled	.136"	.33	.26	.21	.18
750-0965	8R1	G	Black	1/16"	.48	.39	.31	.27
750-0967	8R3	G	Mica-filled	1/16"	.65	.52	.41	.37
750-0971	8RO	....	Retainer ring	.....	.16	.13	.10	.09
750-0952	8AP	....	Adapter plate	.....	.20	.16	.13	.11

TEST-SOCKET TUBE ADAPTERS



For measurement from tube-side of chassis. Long test-tabs for easy connection. **Types TVS** are low-loss mica-filled molded phenolic per **MIL-M-14 MFE. Types 1447, 1449** with captive or telescoping tube shields; 1 21/32" high. Insulation resistance, 500,000 megs; breakdown exceeds 1700 VAC or DC. Av. shpg. wt. 5 oz.

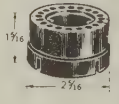
Stock No.	Mfr's Type	Fig.	Pins	Description	1-24	25-Up
885-0195	TVS-7	J	7	Miniature	3.75	3.00
885-0196	TVS-8	J	8	Octal	4.13	3.30
885-0197	TVS-9	J	9	Miniature	4.13	3.30
885-0368	1447	H	7	Miniature	3.75	3.00
885-0369	1449	H	9	Miniature	4.13	3.30

BREADBOARD SOCKETS

Surface-mount sockets have insulated base with numbered connections. Phosphor bronze spring contacts. Standard center-to-center mtg. holes, 7- and 9-pin mount in center or on side, 8-pin mounts on side. 2 oz.

Stock No.	Mfr's Type	Desc.	EACH 1-9	10-49	50-99	100-Up
885-0201	XS-7	7-pin min.	2.20	1.76	1.32	1.06
885R0202	XS-8	8-pin octal	2.35	1.88	1.41	1.13
885-0203	XS-9	9-pin min.	2.15	1.72	1.29	1.03

TYPE 20-PM PHOTOMULTIPLIER TUBE SOCKET



20-contact socket for RCA photomultiplier tubes. Accepts 6810, C7187A, C7122, 7265 or others with similar bases. Durable MAI-60 alkyd glass fibre base. Meets **JETC 20-102.** Shpg. wt. 2 oz.

750-1049. 1-9. .Each 11.20 10-24. Each 8.96
25-49.....Each 7.17 50-Up.....Each 6.25

DUODECAL CRT SOCKET

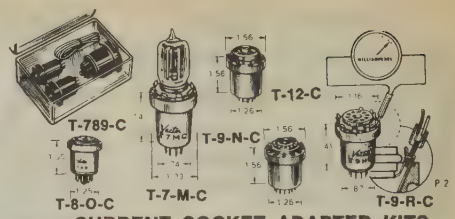
Mica-filled, phenolic socket has 12 prongs. Accepts 10BP4; 2BP1, 5TP4, etc.; RCA 6199. **Meets JETEC B12-43** specs. Wt. 4 oz.

Stock No.	Mfr's Type	Desc.	EACH 1-9	10-24	25-49	50-Up
750-0856	3M12	Socket	4.10	3.28	2.62	2.25

DIHEPTAL CRT SOCKET

Black bakelite or mica-filled 14-prong sockets. Accept 6217, 5819. **Meets JEDEC B12-37.** Less mounting ring. 5 oz.

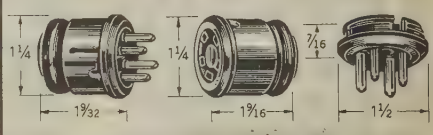
750-0857	3M14	Mica-filled	3.75	3.00	2.40	2.08
750-0859	3R14	Mtg. ring	1.38	1.10	.88	.76



CURRENT SOCKET ADAPTER KITS

T912C. T-12-C, T-9-R-C Adapters; P-2 Probe; plastic case. 6 oz.
977-0999. 1-19-Ea. 14.76 20-99-Ea.12. 55 100-Up-Ea. 11.76
T-789-C. T-7-M-C, T-8-O-C, T-9-N-C Adapters; P-2 Probe; plastic case. Shpg. wt. 6 oz.
977-0996. 1-19-Ea. 20.94 20-99-Ea. 17.81 100-Up-Ea. 16.68

MULTI-PURPOSE CONNECTORS



SERIES 78 CONNECTORS

Matching male-female protected terminals with unbreakable metal caps. Caps are screwdriver removable. Accepts cables up to 3/8". **PF, PM8:** octal. **PF9, PM9, PF11, PM11:** octal style. Type PF and PM have small contacts. Av. shpg. wt., 3 oz.

Stock No.	Mfr's Type	Contacts	EACH 1-24	25-49	50-99	100-Up
713-2915	78-PF4	4	.69	.55	.49	.44
713-2916	78-PF5	5	.71	.57	.51	.46
713-2919	78-PF8	8	.68	.54	.50	.45
713-2920	78-PF9	9	.74	.59	.53	.48
713-2921	78-PF11	11	.80	.64	.58	.50
713-3613	86-PM4	4	.78	.66	.59	.53
713-3615	86-PM5	5	.78	.66	.59	.53
713R3621	86-PM8	8	.82	.70	.63	.57
713-3625	86-PM11	11	.85	.72	.65	.59

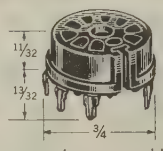
SERIES 86 STANDARD CP PLUGS

Bakelite CP type plugs ideal for use as chassis connectors, with plug-in units or as inexpensive cable connectors. Retainer ring mtg. Use adapter plate (below) for replacement. Come with mtg. ring for 1 11/64" holes. With guide post, aligning key. Av. shpg. wt., 2 oz.

Stock No.	Mfr's Type	Pin	EACH 1-24	25-49	50-99	100-Up
713-3602	86-CP4	4	.51	.41	.33	.30
713-3603	86-CP5	5	.51	.41	.33	.30
713-3605	86-CP7S	7-Small	.57	.46	.37	.33
713-3606	86-CP8	Octal	.55	.44	.35	.32
713-3610	86-CP11	11	.58	.46	.37	.33

ADAPTER PLATE TYPE 12-001-03. Nickel plated steel. For all Type CP plugs above. 1 1/2" to 1 7/8" centers. Av. shpg. wt., 1 oz.
713-0085 .....Each .12

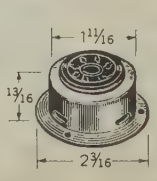
STAND-OFF SOCKETS FOR PRINTED CIRCUITS



Stand-off sockets rest on shoulder of the contact tail—provide air gap for cooling and eliminating possibility of a moisture trap. Designed for 1/16" printed circuitry. All are constructed of general-purpose black phenolic casting with hot tinned brass contacts. Av. shipping weight is 1 oz.

TYPE 7PC-B1. For 7-pin miniature tubes.
750-0916. 1-9 .....Each .19 10-24 .....Each .15
25-49 .....Each .12 50-Up .....Each .11

TYPE 9PC-B1. For 9-pin miniature tubes.
750-0998. 1-9 .....Each .23 10-24 .....Each. 19
25-49 .....Each .15 50-Up .....Each .13



ACS SOCKET-SHELL

TYPE 23-1S. For S, RS, RSS sockets. 1 3/16" abv/blw chassis. 1 3/4" mtg.

713-0501. 1-24 .....Ea. .34
25-49 .....Ea. .31
50-99 .....Ea. .25
100-Up .....Ea. .22

Allied Industrial and Special Purpose Tubes

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ALLIED ELECTRONICS GUARANTEE

Allied Electronics guarantees these Industrial and Special Purpose tubes for a length of time equal to two times the standard warranty. This warranty does not apply to broken tubes.

- **Guaranteed for Double the Standard Warranty**
- **High-Quality Industrial/Special Purpose Tubes**
- **Communications and Industrial Applications**
- **Tested to Meet Rigid Specifications**
- **Manufactured under the Highest Precision Standards**
- **Stringent Quality Control Procedures Assure Performance Maximum Reliability and Longer Life**
- **In Stock at Lowest OEM Prices Available**

The Industrial and Special Purpose tubes listed below have been manufactured to Allied Electronics' specifications to provide high-quality performance, maximum reliability and longer life at the lowest possible OEM prices available. Used in electronic installations the world over, these tubes are providing distinguished service in a wide variety of applications — transmitting and receiving stations, radar and ground control installations, industrial monitoring and processing control centers, communications networks etc. Allied guarantees these tubes for twice as long as the standard warranty.

ALLIED INDUSTRIAL AND SPECIAL PURPOSE TUBES

Stock Number	Tube Type	EACH 1-9	EACH 10-49	EACH 50-Up
610-0033	0B2	2.65	2.12	1.77
610-0102	866A	9.00	7.20	6.01
610-0114	5763	4.30	3.44	2.87
610-0116	5814A	4.88	3.90	3.26
610-0120	5963	3.33	2.66	2.22
610-0126	6080	9.65	7.72	6.45
610-0128	6146B/8298A	9.63	7.70	6.43
.....	.....	...	...	...

Note: Allied also carries its own line of high-quality receiving tubes. These receiving tubes are listed on the following two pages along with tubes of other manufactures. They are easily identifiable by Stock Numbers — Allied's tubes have Stock Number prefix 702.

TECHNICAL MANUALS FOR INDUSTRY

RECEIVING TUBE MANUAL

- **Updated Information**
- **Schematic and Pictorial Illustrations**

RC-29. Full technical data on over 1400 current electron tubes and basic data for replacement. Numerous charts, diagrams, schematics and pictorial outlines make this manual especially helpful to instructors and students.

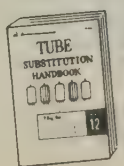
Sections include: Electrons, Electrodes and Electron Tubes, Electron Tube Characteristics and Applications, Installation, Interpretation of Tube, Data, Application Guide for Receiving Tubes, Technical Data, Tube Types for Replacement Use, Picture Tube Characteristics Chart, Voltage Regulator and Voltage Reference Tubes, Electron Tube Testing, Resistance Coupled Amplifiers, Base Diagrams, Outlines, Circuits. Size: 5¼ x 8¼". Shpg wt. 1¼ lbs

902-0230 ..... **Each 2.50**

PHOTOMULTIPLIER MANUAL

PT-61. Data on sources, spectra, noise and all photomultipliers combines with a wide variety of diagrams and illustrations. Sections include: Photoemission, Secondary Emission, Principles of Photomultiplier Design, Statistical Fluctations and Noise, Applications, Voltage-Divider Considerations, Photometry, Radient Energy, Technical Data, Outlines, Base Diagrams. 192 pages. Shpg. wt: 1 lb.

902-2020 ..... **Each 2.50**



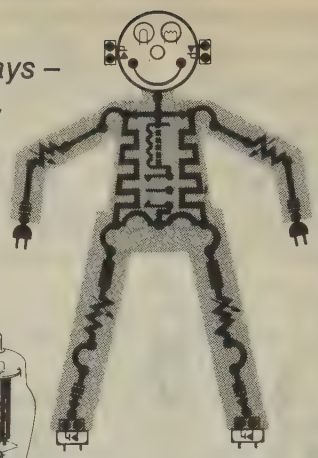
TUBE SUBSTITUTION HANDBOOK

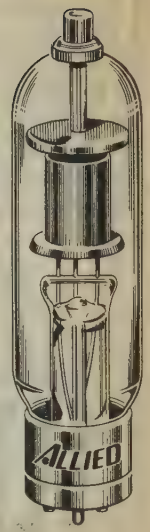
62-2030. This 96 page handbook contains information on more than 12,000 direct tube substitutions. Completely up-to-date, this handbook represents an invaluable reference book for hobbyists, engineers, designers and field technicians. Covers all tube types — picture, miniature, industrial and receiving. Also includes cross references for picture tubes, miniature tubes and industrial tubes.

910-5613 1-99 ..... **Each 1.75** **100-Up** ..... **Each 1.40**

Receiving Tubes

Alec Electron Says – There's No Buy Like an Allied Buy!





- **Over 100 Types of Highest Quality**
- **New Tube Types Placed in Stock When Introduced**
- **Tubes Can Be Furnished in Production Quantities**
- **Orders Are Billed at Current OEM Prices**
- **Allied Receiving Tubes Guaranteed for Two Full Years**

You can be sure of being fully satisfied when you order your receiving tubes from Allied. Full two-year guarantee on Allied tubes only: Allied will replace any tube that does not provide efficient performance for 24 months from date of purchase. (Does not apply to broken tubes). New tube types are placed in stock as they are released from the manufacturer. Tubes can be furnished in production quantities and are billed at current OEM prices—contact your nearest Allied facility.

Stock No.	Tube Type	EACH—MAY BE ASSORTED 1-9	10-49	50-up
899-0019	1G3GT/1B3GT	3.00	2.70	2.50
899-0021	1U5	2.76	2.48	2.30
899-0028	1V2	1.80	1.62	1.50
899-0033	3A3C	3.03	2.73	2.53
899-0041	5AQ5	3.03	2.73	2.53
899-0135	5AR4	4.08	3.67	3.40
936R1040	5U4G	2.91	2.62	2.43
899-0186	5V4GA	3.51	3.16	2.93
702R0025	5Y3GT	2.64	2.38	2.20
899-0192	5Z3	3.27	2.93	2.73
899-0187	6AB4	3.06	2.75	2.60
899-0197	6AC7	4.71	4.24	3.93
899-0207	6AG7	6.30	5.67	5.25
936-1045	6AH6	5.88	5.29	4.80
899-0188	6AK5/EF95	4.02	3.62	3.35
702R0031	6AL5	2.61	2.35	2.18
702-0033	6AN8A	3.63	3.27	3.03
899R0189	6AQ5A	2.55	2.30	2.18
899-0223	6AQ6	2.37	2.13	1.98
899-0225	6AQ8/ECC85	2.07	1.86	1.73
899-0235	6AU5GT	4.83	4.35	4.03
702R0037	6AU6A	2.43	2.19	2.03
702-0137	6AU8A/6KD8	4.29	3.86	3.58
899-0238	6AV5GA	4.41	3.97	3.68
899-0054	6AV6	2.22	2.00	1.85
899-0190	6AW8A	3.39	3.05	2.83
899-0057	6AX4GTB	3.03	2.73	2.53
899-0243	6AX5GT	3.81	3.43	3.18
936-1005	6BA6/EF93	2.67	2.40	2.23
899-0059	6BE6	2.94	2.65	2.45
899-0269	6BH6	3.03	2.73	2.53
899-0273	6BJ6	3.30	2.97	2.75
899-0060	6BK4C/6EL4A	5.61	5.05	4.68
899-0191	6BK7B	4.14	3.73	3.45
899-0062	6BL8/ECF80	4.95	4.46	4.13
702R0054	6BQ5/EL84	2.94	2.65	2.45
702-0056	6BQ7A/6B27/6BS8	4.17	3.75	3.48

Stock No.	Tube Type	EACH—MAY BE ASSORTED 1-9	10-49	50-up
899-0294	6BW4	2.19	1.97	1.83
702R0060	6C4	3.15	2.84	2.63
899-0304	6C5	4.17	3.75	3.48
899-0308	6CA4	3.21	2.89	2.68
936-1010	6CA7/EL34	3.84	3.46	3.20
899-0193	6CB6A/6CF6	2.46	2.21	2.05
899-0068	6CD6GA	5.67	5.10	4.73
702-0066	6EL6	4.14	3.73	3.45
899-0077	6CW4	5.31	4.78	4.43
936-1055	6CW5/EL86	1.77	1.59	1.48
899-0087	6DK6	2.94	2.65	2.45
899-0088	6DQ5	6.27	5.64	5.23
899-0092	6DW4B	2.82	2.54	2.35
899-0369	6E5	4.47	4.02	3.73
702-0084	6EA8	2.97	2.67	2.48
899-0096	6EJ7/EF134	2.70	2.43	2.25
899-0384	6EU7	3.21	2.89	2.68
899-0170	6EW6	2.70	2.43	2.25
899-0392	6F5	4.53	4.08	3.78
899-0069	6FQ7/6CG7	2.25	2.03	1.88
899-0103	6GF7A	3.99	3.59	3.33
899R0421	6GH8A	2.37	2.13	1.98
899-0105	6GK6	2.82	2.54	2.35
899-0089	6GW6/6DQ6B	4.05	3.65	3.38
936-1060	6GW8/ECL86	1.95	1.76	1.63
936-1015	6H6	4.53	4.08	3.78
899-0470	6J5	3.78	3.40	3.15
899-0118	6J6A	4.41	3.97	3.68
936-1025	6J7	4.62	4.16	3.60
899-0476	6JB6A	4.83	4.35	4.03
899R0521	6L6	7.59	6.83	6.33
936-1020	6L6GC	4.59	4.13	3.83
899-0535	6LQ6/6JE6C	6.69	6.02	5.58
899-0553	6N7	4.14	3.73	3.45
899-0563	6SF5	3.72	3.35	3.10
899-0566	6SH7	4.53	4.08	3.78
899R0567	6SJ7	4.38	3.94	3.65

Stock No.	Tube Type	EACH—MAY BE ASSORTED 1-9	10-49	50-up
899-0569	6SK7	4.05	3.65	3.38
899-0128	6SL76T	4.59	4.13	3.83
702R0135	6SN7GTB	3.03	2.73	2.53
702R0137	6U8A/6KD8	2.94	2.65	2.45
899-0585	6V6	5.31	4.78	4.43
899-0130	6V6GTA	3.66	3.29	3.05
899R0589	6X4	2.91	2.62	2.43
899-0590	6X5GT	2.94	2.65	2.45
899-0593	6Y6GA/6Y6G	3.63	3.27	3.03
899-0610	8AW8A	4.38	3.94	3.65
702-0138	8CM7	1.92	1.73	1.60
899-0136	8FQ7/8CG7	2.25	2.03	1.88
899-0182	12AT7/ECC81	2.55	2.30	2.13
702-0148	12AU6	2.88	2.59	2.40
702R0149	12AU7A/ECC82	2.31	2.08	1.93
702-0150	12AV6	1.86	1.67	1.55
899-0700	12AV7	4.02	3.62	3.35
702R0152	12AX7A/ECC83	2.13	1.92	1.78
936-1029	12AY7	2.16	1.94	1.80
899-0705	12B4A	3.54	3.19	2.95
702-0155	12BA6	2.16	1.94	1.80
702-0156	12BE6	2.43	2.19	2.03
702R0157	12BH7A	3.15	2.84	2.63
702-0158	12BY7A/12BV7/12DQ7	2.70	2.43	2.25
899-0764	12H6	3.54	3.19	2.95
899-0790	12SL7GT	4.62	4.16	3.85
899R0791	12SN7GTA	3.51	3.16	2.93
899-0920	25C5	3.03	2.73	2.53
702-0169	35W4	1.56	1.40	1.30
702-0171	50C5	2.31	2.08	1.93
899-0199	50L6GT	3.90	3.51	3.25
899-0990	7027A	5.46	4.91	4.55
899-0993	7247	3.06	2.75	2.60
899-0998	7591A	1.98	1.78	1.65
899-1000	7868	4.11	3.70	3.43
899-1001	8417	4.02	3.62	3.35

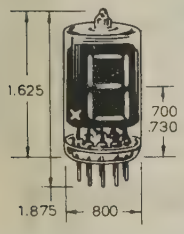
Prices Subject to Change—We Always Ship at Lowest Price in Effect

Industrial and Special Purpose Tubes

Stock No.	Tube Type	EACH 1-9	10-49	50-Up
903R0002	0A2	2.45	1.96	1.62
903-0003	0A3	2.92	2.37	1.94
903-0034	0B2	2.72	2.18	1.81
903-0019	0B2WA	4.57	3.66	3.03
903-0023	0C2	3.02	2.42	2.01
903-0025	0C3	2.98	2.38	1.98
903-0031	0D3	2.80	2.24	1.85
903R0022	C1K/6014	17.70	15.05	14.10
900-0058	1P22	36.50	30.48	25.92
900-0061	1P28	41.00	34.32	29.18
903-0037	1P39	10.35	8.80	8.25
784-0001	2AS15A	20.20	17.18	16.09
903R0039	2D21	2.70	2.16	1.78
903-0040	2X2A	9.82	7.86	6.10
900-0134	3B28	22.25	17.80	14.86
900-0140	3C23	18.50	15.45	13.14
549-0166	3CJ/5632	18.87	16.05	15.03
549-0050	C3J/L	22.83	20.76	18.70
549-0055	C3JA/5684	19.09	17.48	15.64
851-0020	4-65A/8165	63.00	52.61	44.73
651-0021	4-125A/4D21	84.00	70.14	59.64
651-0022	4-250A/5D22	93.50	78.07	66.39
651-0023	4-400/8438	109.00	91.02	77.39
903-0060	5R4GYA	3.27	2.62	2.25
903-0061	5R4GYB	3.27	2.62	2.25
900-0216	5UP1	38.66	32.87	30.79
900-0237	6AK6	3.15	2.52	2.10
900-0244	6AS7G	11.08	8.86	7.40
900-0255	6DJ8/ECC88	4.78	3.82	3.19
549-0201	ELC6C	70.45	65.50	61.07
549-0100	ELC6J	37.58	31.95	29.93
549-0300	ELC6J/A*	55.00	46.79	43.82
549-0206	ELC6J/F	36.74	29.25	27.28
549-0301	ELC6J/L*	39.25	33.37	31.26
549-0205	ELC16J	62.90	58.52	54.56
900R0328	83	8.80	7.04	5.88
651-0150	85A2/0G3	4.68	3.90	3.32
651-0381	EF86/6267	1.80	1.50	1.29
903-0512	CK512AX	8.70	6.96	6.00
903-0069	575A	33.73	28.25	25.42
866-0033	NL635L/7020	35.00	28.00	23.38
866-0660	NL660L/7786	32.06	27.26	25.54
900-0374	710/6011	20.10	16.78	14.27
866-0057	NL714	23.38	19.88	18.62
903-0070	807	9.75	7.80	6.05
900-0389	811A	11.86	10.08	9.44
900-0392	812A	16.50	13.20	11.02
866-0084	NL841	18.58	14.86	12.41
903-0073	866A	7.20	6.01	5.11
900-0074	872A	29.00	23.20	19.37
900-0455	922	11.88	9.50	7.93
903-0077	927	12.44	11.54	10.39
903-0080	930	11.75	9.40	7.25
900-0476	931A	23.50	19.62	16.69
784-0006	1236C	30.35	25.86	24.22
903R0100	2050A	4.10	3.28	2.72
903-0102	5550	79.74	67.81	63.51
900-0619	5557	18.25	14.60	12.19
903-0108	5581	13.69	11.64	10.91
900-0640	5582	22.25	17.80	14.86
903-0110	5583	17.87	15.19	14.23
900-0653	5642	3.63	2.90	2.42
903-0112	5651A	3.07	2.46	2.15
903-0114	5654	4.35	3.48	2.91
903-0122	5691	10.60	10.49	8.48
903-0124	5692	13.97	11.18	9.24
900-0704	5696	4.55	3.64	3.04
903-0130	5726	3.90	3.12	2.58
903-0132	5727	5.37	4.29	3.56
903-0136	5751	5.25	4.20	3.48
903-0139	5814A	4.87	3.90	3.22
903-0140	5823	3.10	2.48	2.05
651-0319	5869	44.20	41.23	38.44
903-1205	CK5879	4.27	3.42	2.40
903-0144	5881	4.42	3.54	3.10
903R1212	CK5886	12.36	10.51	9.84
903-0150	5963	3.33	2.66	2.22
903-0154	5965	4.00	3.20	2.65
903-0156	6005	6.57	5.26	4.34
903-0158	6012	14.82	11.85	9.80
903-0160	6072	6.42	5.14	4.24
651-0353	6076	438.90	409.20	382.80
903-0162	6080	9.67	7.74	6.40
651-0352	6084	13.56	11.53	10.80
903-0166	6136	5.75	4.60	3.80
903-0168	6146A	8.68	6.94	5.79
903-0174	6201	5.80	4.64	3.84
900-0907	6202	5.40	4.32	3.61
900-0925	6336A	46.00	39.12	36.64
903-1290	CK6528	35.07	29.82	27.93
903-0178	6550	10.00	8.00	6.61
651-0418	6907	78.40	65.46	55.66
651-0420	6960	334.00	284.00	248.00
866-0132	NL6989NE	43.59	37.30	33.57
651-0445	7025/12AX7	2.58	2.06	1.85
900-2034	7586	12.65	10.12	8.45
903-0188	7587	10.25	8.20	6.78
900-2054	7788	27.75	22.20	18.54
900-2062	7895	12.93	10.34	8.63
866-0182	NL8421/5092	19.46	16.54	15.21

INCANDESCENT DIGITAL READOUT TUBES

- **Adjustable Brightness**
- **Interference Free**



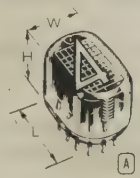
Mounting: DR2000 Series fit standard 9-pin miniature tube socket or may be soldered into PC boards.

- **High-Contrast Clutter-free Displays Viewed Against Dark Background • PC or Standard Socket Mounting**
- **Wide-Spectrum Light Emission Permits Filter Selection for Variety of Colors • Wide Viewing Angle**
- **Compatible with Low-Cost Integrated-Circuit Decoder/Drivers • Low-Voltage Operation**

Provide bright displays ideally suited for most types of digital-readout systems. These low-voltage devices may be operated in either a DC or multiplex mode. Rugged, single-plane unit construction for high reliability and 100,000 hour life. Up-front display surface permits a wide viewing angle with a display that is free of residual images. Brightness adjustable with simple voltage controls, from zero output to a level easily seen under high ambient light. Free of induced or radiated interference. Power Requirement: 108 mW/segment. DC Segment Voltage: 4.5 Segment Current: 24 mA.

Stock No.	Mfr's Type	Description	Mounting	Viewing Angle	Size, Dia. x Envel. 'L.	Char. Ht.	EACH 1-49	50-Up
902-0300	DR2000	0-9	PC or 9-pin skt.	140°	.800x1.625	.600	7.93	6.75
902-0310	DR2010	0-9, L.H. dec.	PC or 9-pin skt.	140°	.800x1.625	.600	8.18	6.96
902-0320	DR2100	0-9	PC or 10-pin skt.	120°	.485x1.45	.625	7.93	6.75
902-0330	DR2110	0-9 L.H. dec.	PC or 10-pin skt.	120°	.485x1.45	.625	8.18	6.96

- **Can Be Read Even Under High Ambient Light**
- **Life in Excess of Four Years**
- **Uniform Color and Intensity**



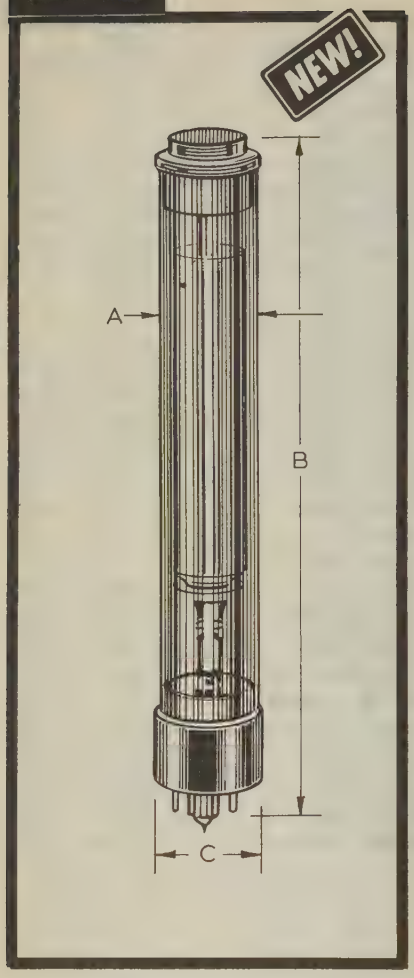
NUMERICAL NEON-GLOW READOUT TUBES

Visible display is a red-orange neon glow in the form of desired character. Numerical character height is .610" and pre-bias V. limits are 50-120. Uniform color and intensity. Under most difficult conditions, as display of one number only, life is in excess of four years. With different numbers life is much greater. Regular types have 5000-8000 hours. *200,000 hours or 20 years. §left-hand decimal point. †End View (0-9). ‡Side View (0-9). Shpg. wt. 4 oz.

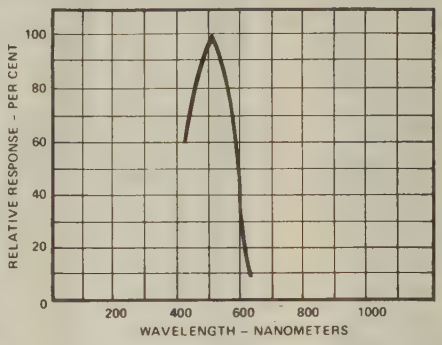
Stock No.	Tube Type	Fig.	Max. DC Ion V.	Min. DC Supp. V.	Cathode mA Peak Peak	Cathode mA Av. Max.	Cathode mA Av. Min.	Max. Tube Size Ht. (In.)	Max. Tube Size Dia. (In.)	Max. View Distance (Ft.)	Fits Socket	EACH 1-9	10-49	50-Up
866-0123	NL-6844A†	A	170	170	4.0	3.0	1.5	1.125	1.080	30	RTS-4	14.11	11.24	10.48
866-0083	NL-840/8754‡*	B	170	170	3.5	3.0	1.5	1.800	.750	30	RTS-14	11.75	9.40	7.85
866-0084	NL-841‡§*	B	170	170	3.5	3.0	1.5	1.800	.750	30	RTS-14	18.58	14.86	12.41

Camera Tubes

RCA VISTACONS (LEAD-OXIDE VIDICONS)



Lead Oxide RCA Vistacons are designed primarily for TV film studio pickup service and closed-circuit TV applications. The lead-oxide photoconductor has high sensitivity and extremely low lag. Typical applications include: color broadcast studio film pickup; educational, military and industrial closed-circuit TV; data transmission; space exploration; oceanographic surveys; remote monitor systems.



TYPICAL SPECTRAL RESPONSE CHARACTERISTICS

The diagram at left shows the response curve of RCA Lead Oxide Vistacon camera tubes, indicating wavelength in nanometers and relative response as a percentage. The Test Data Chart below is referenced to the diagram. Series 4592 has a separate field mesh connection; Series 4591 does not. Limiting Resolution of all types is 700 TV lines. *At 400 TV lines/PH. †Measured using the following optical filters: 4591/R, Schott, 0G570, 3mm thick; 4591/G and 4592/G, Schott, VG9, 1mm thick; 4591/B and 4592/B, Schott, BG-12, 3mm thick.

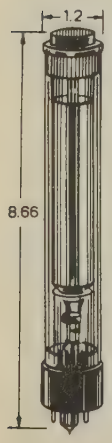
TEST DATA CHART

Type No.	Typical Faceplate Illum.† (fc)	Typ. Output Signal (nA)	Detail Response: At Mesh Volts	Detail Response: Amp. Resp. (%)*	Detail Response: Limiting Resol. TV Lines	Heater Current/Power: A	Heater Current/Power: W	Max. Image Dia. (in.)	For Color Channel
4591/B	1	80	600	35	700	0.1	0.6	0.83	Blue
4591/G	1	320	600	30	700	0.1	0.6	0.83	Green
4591/L	1	800	600	30	700	0.1	0.6	0.83	Luminance
4591/R	1	196	600	25	700	0.1	0.6	0.83	Red
4592/B	1	80	700	35	700	0.3	1.9	0.83	Blue
4592/G	1	320	700	30	700	0.3	1.9	0.83	Green
4592/L	1	800	700	30	700	0.3	1.9	0.83	Luminance
4592/R	1	196	700	25	700	0.3	1.9	0.83	Red
4593/R	50 max.	160	700	40	700	0.3	1.9	0.83	Red
4594/G	50 max.	425	700	45	700	0.3	1.9	0.83	Green
4594/R	50 max.	160	700	40	700	0.3	1.9	0.83	Red

PRICES AND REPLACEMENT DATA FOR RCA VISTACONS

Stock No.	Mfr's Type	Replaces	For Channel	EACH 1-3	EACH 4-Up
900F2900	4591/B	55875B	Blue	2418.00	2262.00
900F2901	4591/G	55875G	Green	2418.00	2262.00
900F2902	4591/L	55875L	Luminance	2418.00	2262.00
900F2903	4591/R	55875R	Red	2418.00	2262.00
900F2904	4592/B	XQ1020B	Blue	2387.00	2233.00
900F2905	4592/G	XQ1020G	Green	2387.00	2233.00
900F2906	4592/L	XQ1020L	Luminance	2387.00	2233.00
900F2907	4592/R	XQ1020R	Red	2387.00	2233.00
900F2908	4593/R	XQ1023R	Red	2728.00	2552.00
900F2909	4594/R	XQ1025R	Red	2728.00	2552.80
900F2910	4594/G	XQ1025G	Green	2728.00	2552.00

VIDICONS FOR COMMERCIAL, EDUCATIONAL, INDUSTRIAL AND MILITARY TV



CHOOSE FROM THESE CATEGORIES

FOCUS AND DEFLECTION METHOD: Magnetic-focus, magnetic-deflection vidicons provide highest center and corner resolution, but require the most electrical power and result in TV cameras having the most weight. Electrostatic-focus, magnetic-deflection vidicons have intermediate resolution capability, require intermediate electrical power, and find use in compact lightweight cameras.

SEPARATE MESH ELECTRODE. Available with separate or with conventional mesh connection. Separate mesh connection vidicons provide higher and more uniform resolution and signal output when operated at high voltage than do comparable size vidicons having mesh and wall electrodes connected.

HEATER POWER. Vidicons are stocked with conventional 3.8 Watt Heaters and with 0.6 Watt "Dark Heaters" for transistorized TV cameras.

TUBE DIAMETER. Larger Tube diameter provides more TV lines per picture height, which results in clearer reproduction.

HIGH-PERFORMANCE BROADCAST AND INDUSTRIAL APPLICATIONS

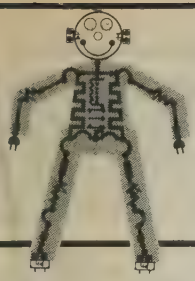
Stock No.	Type	Dia. Inch	Mesh-Wall Connection	Focus	Deflection	Heater Watts	EACH 1-4	EACH 5-Up
900-2053	7735B	1	Conventional	Magnetic	Magnetic	3.8	233.80	195.00

GENERAL CLOSED-CIRCUIT APPLICATIONS

Stock No.	Type	Dia. Inch	Mesh-Wall Connection	Focus	Deflection	Heater Watts	EACH 1-4	EACH 5-Up
900-2049	7735	1	Conventional	Magnetic	Magnetic	3.8	49.25	45.50
900-2050	7735A	1	Conventional	Magnetic	Magnetic	3.8	133.60	125.00

Write, Wire or Phone Allied Electronics for Larger Quantity Prices

Industrial Light-Sensitive Devices



Alec Electron

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CdS and CdSe PHOTO CELLS

4H, 7H, 12H, 25R, 25H, E SERIES

Stock No.	Mfr's Type	Light resist. (A) (1 FTC K)	Dark resist. (B) (M)	Max. power dissipation (25°C mW)	Max. voltage (VDC)	EACH 1-9	10-99	100-499	500-Up
945-4138	MKB4H38	5-10	50	50	150	1.97	1.58	1.16	.93
945-7238	MKB7H38	5-10	100	150	150	2.02	1.62	1.16	.93
945-1146	MPY-12H46	10-20	0.6	500	300	2.22	1.78	1.20	1.05
945-1139	MPY-12H39	5-10	2	500	200	2.22	1.78	1.20	1.05
945-1159	MPY-12H59	20-50	10	500	300	2.22	1.78	1.20	1.05
945-2449	MPY-25R49	10-20	5	750	500	1.65	1.32	.98	.69
945-2538	MPY-25H38	5-10	5	1000	800	3.20	2.56	1.45	1.16
945-2549	MPY-25H49	10-20	5	1000	800	3.20	2.56	1.45	1.16
945-5738	MKY1-5C38E	7.5†	0.3	45	150	.87	.70	.52	.42
945-1849	MPY-12C49E	15†	2	300	200	.92	.74	.55	.45

IN TABLES ABOVE

H in Mfr's Type indicates metal can be hermetically sealed and C indicates plastic encapsulated. Measurements at 25° C ambient temperature.

RESPONSE TIME

1) Response time (Table 1) indicates time which conductance (1/resistance) of cell reaches 63% (rise) or 37% (decay) of max. value in circuit with series resistance 1/100 of cell resistance.

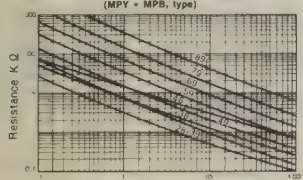
Table 1

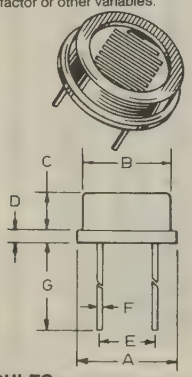
Mfr's Type	1 FC Rise time	1 FC Decay time	10 FC Rise time	10 FC Decay time
MPY type CdS	50 msec	30 msec	8 msec	4 msec
MKY1 type CdS	150 msec	100 msec	50 msec	30 msec

2) In the practical circuit, higher illumination gives faster response time. Larger series resistance gives faster rise time and slower decay time. Longer dark storage slows rise time.

3) The data shown are approximate values of each material listed and may be changed according to the resistance factor or other variables.

LIGHT RESISTANCE VS. ILLUMINATION (MPY • MPB, type)



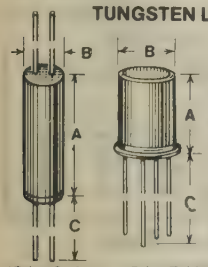


DIMENSION TABLE (All Dimensions In Inches)

Series	A	B	C	D	E	F	G
MKB-7H*	.365	.320	.145	.035	.215	.016	1.5 min
12H	.600	.525	.180	.050	.335	.018	1.5 min
25H	1.235	1.150	.295	.065	.750	.040	.4 min
25R	1.170	....	.350	...	.600	.016x.160	.325
4H	.210	.180	.135	.020	.100	.012	1.0 min

*Has three leads

TUNGSTEN LAMP PHOTOCELL—LAMP MODULES



• **Light Weight, Compact** • **Long Life** • **Extremely Versatile**

Modules consist of CdS or CdSe photoconductive cell for receiving incident light and a tungsten lamp for an incident light generator. May be used as a non-contact variable resistor or as a non-contact switching element. Many uses for modules, camera, flashing, measuring, safety, acoustic, and control devices. Lifetime at rated voltage: MCL-702A, 5000 hrs; other lamps, 10,000 hrs. MCL, axial lead type; MTL radial leads.

DIMENSIONS (Inches)

	A	B	C
MCL	.860	.360	1.00
MTL	.473	.363	1.00

*Price Code—see Price Table below.

Stock No.	Mfr's Type	Price*	Lamp Volt. V	Lamp Curr. mA	Cell¹ ON¹ Res. Ω	Cell² ON² Res. kΩ	Cell³ OFF³ Res. MΩ	Response time⁴ Max. Pwr. Dis. mW	Response time⁴ Rise msec.	Response time⁴ Decay msec.
945-0702	MCL-702A	C	3	16	400	4.0	1	80	16	100
945-0723	MCL-723C	D	10	16	250	3.0	5	200	8	60
945-0726	MTL 726A	D	5	30	[illegible]	0.7	5	150	6	60
945-0803	MTL 703C	D	10	16	200	3.[illegible]	5	70	8	60

NOTES.

1) At 100% of rated V and ± 50% tolerance.
2) At 50% of rated V and tolerance +100% −5%.
3) 10 sec. after turning off lamp.
4) The time which conductance (1/resistance) of cell reaches 63% (rise) or 37% (decay) of maximum value in the circuit with 10k ohms resistance in series.
5) Max. voltage of photoconductive cells is 150 VDC.

PRICES

Code	1-9	10-99	100-499	500-Up
C	2.83	2.26	1.78	1.49
D	3.10	2.48	2.02	1.62

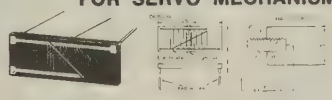
SILICON PHOTOVOLTAIC CELLS

ALL TYPES HAVE MINIMUM OUTPUT VOLTAGE OF 0.4 VOLTS

Tungsten light source illumination equal to 100 mw/cm²; color temperature of 2800°K. Leads 6 ±1/4" long, stripped and tinned 1/4 ± 1/8" long. Units coated with protective epoxy coating.

Stock No.	Mfr's Type	Dimen. LxW (In.)	mA (Min.)	Conversion Efficiency	EACH 1-9	10-99	100-Up
945-1004	SS-10-4LC	.4 x .8	28	4	4.34	3.48	1.97
945-1006	SS-10-6LC	.4 x .8	32	6	4.74	3.94	2.31
945-1008	SS-10-8LC	.4 x .8	36	8	7.23	5.98	3.59
945-1010	SSG-10-10LC	.4 x .8	44	10	14.00	11.22	6.65
945-1011	SS-11LC	.4 x .4	14	6	3.76	3.00	2.02
945-1012	SS-12LC	.2 x .4	7	6	2.89	2.32	1.56
945-1021	SS-21LC	.4 x .2	6	6	3.18	2.54	1.68
945-1022	SS-22LC	.2 x .2	3	6	3.04	2.42	1.45
945-1023	SS-23LC	.088 x .2	1.5	6	2.18	1.74	1.04
945-1030	SSG-30LC	1.130 Dia.	75	6	11.57	9.26	6.83

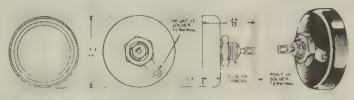
PHOTOBRIDGE — DISPLACEMENT DETECTOR FOR SERVO MECHANISMS



• **Simple Light Adjustment** • **Extended Service Life** • **All Waterproof Coating**
• **Minimal Effect From Temperature and Light Differences**

Stock No.	Mfr's Type	Volts Max.	Spectral Response	Mat.	EACH 1-9	10-99	100-Up
945R2701	MB-1101	25	6000A	CdS	6.36	5.10	3.76
945-2751	MB-1151	25	7000A	CdSe	6.36	5.10	3.76

TYPE SS-200 SILICON POWER PHOTOCELL



A dandy photocell for converting light directly into electrical energy. Small, easy to install and use. Wire in series or parallel. Allows max. power/unit area. Terminals plainly marked; entire unit glass covered. Characteristics based on illum. of 100mw/cm².

Stock No.	Mfr's Type	Load Voltage	Load Current (Min.)	Power (Min.)	EACH 1-9	10-99	100-Up
945-2004	SS-200D	.4 V	60 mA	150 mW	27.05	21.98	19.66

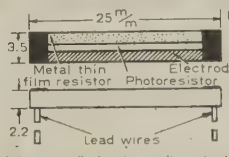
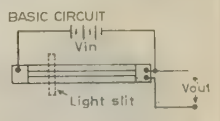


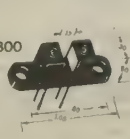
PHOTO-POTENTIOMETER



Light controlled pot permits output voltage changes by shifting a slit of admitting light. Easy to use, compact, no wearing out because there's no mechanical contact. Good resolution due to continuous shape of electrode. High input voltage to output convertible ratio.

Stock No.	Mfr's Type	Applied Volts Max.	Spectral Response	MAT	EACH 1-9	10-99	100-Up
945R1601	MPC-1001	25	5900-A	CdS	6.36	5.10	3.76
945-1651	MPC-1051	25	7000-A	CdSe	6.36	5.10	3.76

SSOS-800



SSOS OPTICAL SWITCHES

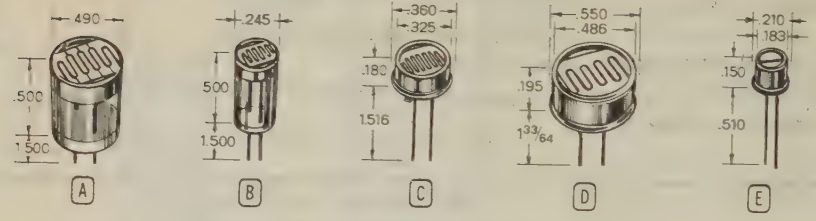
Consists of a light emitting diode (LED) activating a photo transistor across a .120" gap. Solid state switching: complete solid state interface provided between mechanical motion and logic circuitry. Has 10" leads (#28 gauge PVC) for mounting flexibility. 700 has one mounting hole and locating pin; 800 has two. DTL and TTL compatibility. High switching speed. Operating temperature: −65° to +100°C. Reverse breakdown: 6 volts.

SSOS-700

Stock No.	Mfr's Type	Forward Curr. mA Typ.	Forward Curr. mA Max.	Forward Voltage Typ.	Forward Voltage Max.	EACH 1-9	10-99	100-Up
945-9150	SSOS-700	50	100	1.3	1.5	13.15	11.85	10.65
945-9160	SSOS-800	50	100	1.3	1.5	13.15	11.85	10.65

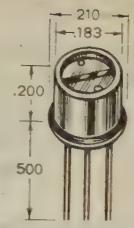
Photocells and Photocell Products

CdS AND CdSe PHOTOCELLS



Type 2 CdS: Peak resp. 5150A, bluest response photosensitive material; high stability, low temp. error. Use with fluorescent and incandescent lamps. **Type 3 CdSe:** Peak response 7350A, fast response, high light-to-dark resistance ratio. Good for hi-speed switching, counting. Sensitive to near infrared. For incandescent or neon. **Type 4 CdSe:** Peak response 6900A. Good for on-off use when low resistance is desired. For incandescent or neon. **Type 5 CdS:** Peak response 5500A (closely matches human eye), stable, low memory photocell. Good in light measuring applications and precise low speed switching. For incandescent, neon, fluorescent. **Type 5H CdS:** Peak response 5500A. Uniform color temp. response. For speed switching, high-stability measuring; incandescent, fluorescent, neon. **Type 7CdS:** Peak response 6150A, moderate speed and ratio. Good in general beam breaking applications. **Dual Element:** Contains 2 separate elements with 2 leads and common lead. *Resistance at 2 fc ±33⅓%. †Resistance ratio from 2 fc to dark within 5 seconds. ‡Res. at 25°C (mW). §With/without heat sink. 2 oz.

Stock No.	Mfr's Type	Fig.	Description	Dia. x L	*Resist. @ 2 fc	Max. Res. † Ratio	Max. Volt.	‡Power Dissip.	Each 1-24	25-99	100-Up
751-1700	CL602	B	Type 2 CdS	.25x.5	1 meg	1:100	300	75	2.78	2.22	1.85
751-1400	CL503	A	Type 3 CdSe	.5x.5	7.2k	1:10,000	250	500/250§	3.45	2.76	2.30
751-1301	CL5M3	D	Type 3 CdSe	.55x.18	7.2k	1:10,000	250	2000/500§	2.65	2.12	1.77
751R1701	CL603	B	Type 3 CdSe	.25x.5	133k	1:10,000	300	75	3.65	2.92	2.44
751R1702	CL603A	B	Type 3 CdSe	.25x.5	75k	1:10,000	300	75	3.65	2.92	2.44
751R1703	CL603AL	B	Type 3 CdSe	.25x.5	3.5k	1:10,000	170	75	3.65	2.92	2.44
751-1902	CL703	C	Type 3 CdSe	.35x.18	133k	1:10,000	300	125	2.65	2.12	1.77
751R1904	CL703L	C	Type 3 CdSe	.36x.18	2.7k	1:10,000	100	125	2.65	2.12	1.77
751-2404	CL903	E	Type 3 CdSe	.21x.15	133k	1:10,000	250	50	2.60	2.08	1.74
751-2402	CL903A	E	Type 3 CdSe	.21x.15	67k	1:10,000	250	50	2.60	2.08	1.74
751R2403	CL903L	E	Type 3 CdSe	.21x.15	6k	1:10,000	100	50	2.60	2.08	1.74
751-1402	CL504	A	Type 4 CdSe	.5x.5	1.5k	1:1000	250	500/250§	3.45	2.76	2.30
751-1302	CL5M4	D	Type 4 CdSe	.55x.18	1.5k	1:1000	250	2000/500§	2.65	2.12	1.77
751-1403	CL504L	A	Type 4 CdSe	.5x.5	0.25k	1:1000	170	500/250§	3.45	2.76	2.30
751-1303	CL5M4L	D	Type 4 CdSe	.55x.18	0.25k	1:1000	170	2000/500§	2.65	2.12	1.77
751-1704	CL604	B	Type 4 CdSe	.25x.5	30k	1:1000	300	75	3.65	2.92	2.44
751R1705	CL604L	B	Type 4 CdSe	.25x.5	1.5k	1:1000	170	75	3.65	2.92	2.44
751-1907	CL704	C	Type 4 CdSe	.36x.18	30k	1:1000	300	125	2.65	2.12	1.77
751-1908	CL704L	C	Type 4 CdSe	.36x.18	0.6k	1:1000	100	125	2.65	2.12	1.77
751R2405	CL904L	E	Type 4 CdSe	.21x.15	2k	1:1000	100	50	2.60	2.08	1.74
751-1404	CL505	A	Type 5 CdS	.5x.5	9k	1:100	250	500/250§	3.23	2.58	2.15
751-1304	CL5M5	D	Type 5 CdS	.55x.18	9k	1:100	250	2000/500§	2.55	2.04	1.70
751-1707	CL605L	B	Type 5 CdS	.25x.5	7.5k	1:100	170	75	2.85	2.28	1.90
751-1913	CL705L	C	Type 5 CdS	.36x.18	3.3k	1:100	100	125	2.55	2.04	1.70
751-2410	CL905	E	Type 5 CdS	.21x.15	166k	1:100	250	50	2.55	2.04	1.70
751-2409	CL905L	E	Type 5 CdS	.21x.15	10k	1:100	100	50	2.55	2.04	1.70
751R1912	CL705HL	C	Type 5H CdS	.36x.18	28k	1:1000	100	125	2.90	2.32	1.94
751R2407	CL905HL	E	Type 5H CdS	.21x.15	100k	1:1000	100	50	2.90	2.32	1.94
751-1306	CL5M7	D	Type 7 CdS	.55x.18	7.2k	1:1000	250	2000/500§	2.55	2.04	1.70
751-1916	CL707	C	Type 7 CdS	.36x.18	133k	1:1000	300	125	2.55	2.04	1.70
751-1920	CL707L	C	Type 7 CdS	.36x.18	2.7k	1:1000	100	125	2.55	2.04	1.70
751-1919	CL707HM	C	Type 7H CdS	.36x.18	100k	1:1000	250	125	2.90	2.32	1.94
751-1918	CL707HL	C	Type 7H CdS	.36x.18	10k	1:1000	100	125	2.90	2.32	1.94
751-2415	CL907HN	E	Type 7H CdS	.21x.15	300k	1:1000	100	50	2.90	2.32	1.94
751-2414	CL907HL	E	Type 7H CdS	.21x.15	24k	1:1000	100	50	2.90	2.32	1.94
751-1890	CL702L/2	C	Type 2 CdS Dual	.36x.18	46k	1:100	100	125	3.48	2.78	2.32



PHOTOCHOPPER CELLS

Maintain high efficiency over wide temperature range and eliminate warm-up time. Efficiency levels, in spite of SPDT configuration, are 72% at 1 kHz, 93% at 400 kHz, and 98% at 60 Hz. Efficiency change from 28°C to 60°C is less than 15%. Range: −50°C to +75°C. Rated 50 mW at 25°C. Conductive glass windows and third lead is grounded to case for shielding. Size is .210 x .150". Shipping wt. 2 oz.

Stock No.	Mfr's Type	Res. ON Ohms	Res. OFF Ohms	EACH 1-24	25-99	100-Up
751-2412	CL906CS	82k	8 megs	5.50	4.40	3.67

DESIGNER'S PHOTOCELL KIT

Includes a selection of five CdS and CdSe photocells for many projects. CdS types includes: CL505, which closely matches human eye response; CL707, for general beam-breaking; CL902, for linear resistance versus light-level response (smallest hermetically sealed unit). CdSe types includes: CL603A, high speed; CL704L, sensitive—66 ohm resistance at 100 *fc*. Shpg. wt. 5 oz.

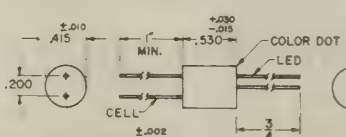
751-3300. 1-9.....Each 18.75 10-Up.....Each 10.00

PHOTOMOD® PHOTOCELL-LAMP MODULE

Clairex high stability photocells in photocell-lamp modules. Ideal for use in automation and data processing systems. Rugged potted package. For maximum efficiency, the cells are optically coupled to the lamps. Operating temperature, 20°C to 75°C. Maximum power dissipation 50 mW at 25°C. Maximum cell volts, 120 volts with lamp off. †Maximum voltage for 5000-hour life. *Neon lamps are of the "high-brightness" type. Their brightness, on an equal life basis is approximately ten times that of the standard brightness. In table below, Rise Time is the time required to reach 100% of on-resistance from off condition; tested after lamp has been on 24 hours. 1⅛" long by ⅜" dia. Wt. 1 oz.

Stock No.	Type	Max. ON Ohms	Rise Time Seconds	Lamp †Volt.	mA	EACH 1-24	25-99	100-Up
751-0200	CLM3006A	160	.060	6V	40	4.83	3.86	3.22
751-0400	CLM4006A	55	.080	6V	40	4.83	3.86	3.22
751-0206	CLM3012A	160	.080	12V	40	4.83	3.86	3.22
751-0406	CLM4012A	30	.080	12V	40	4.83	3.86	3.22
751-0300	CLM3120A	1150	.005	120V	2.5*	4.83	3.86	3.22
751-0500	CLM4120A	160	.005	120V	2.5*	4.83	3.86	3.22

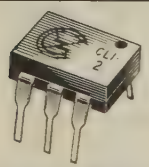
Allied offers fast, same-day shipment of industrial quantities at OEM price discounts. To assure the fastest service, please specify manufacturer's type number and Stock No. on your order. Contact the nearest Allied Electronics facility for information on prices and delivery on quantities larger than shown.



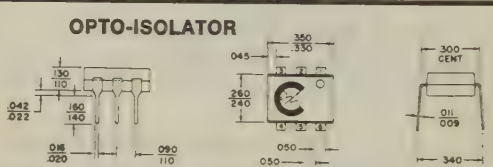
PHOTOMOD® LED-PHOTOCONDUCTOR ISOLATORS

Solid-state lamp with photoconductive cell. CLM6000 low power, low resistance, noiseless switching. Interfaces TTL to TTL providing complete isolation. CLM8000, 8500 sealed device will operate on line voltage to drive SCR, Triacs from TTL output.

Stock No.	Mfr's Type	If max. mA	Vf max If=20mA	Cell Vmax VDC/PAC	P@25°C mW	Ron Max	Roff Min	EACH 1-24	25-99	100-Up
751-4300	CLM6000	40	2.0	60	50	250	500k	6.00	4.80	4.01
751-4400	CLM8000	50	3.2	220	125	400	500k	7.75	6.20	5.18
751-4500	CLM8500	80	2.8	220	125	2k	10 meg	8.50	6.80	5.68

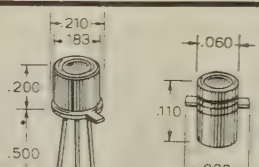


OPTO-ISOLATOR



CLI-2. Min. transfer ratio 30%, max. 100%. Isolation 1500V. Operating junction temp: +100C max. **Emitter.** GaAs diode, P_t 100mW@25°C, derate linearly 1.33 mW/c. V_R 3 max. I_FDC 60 mA cont. max. **Detector.** NPN Si Planar phototransistor. P_t 200mW@ 25°C., derate 2mW/c. V_{CEO} 50 max. V_{CEO} 6 max. I_C 200mA max. BV_{CEO} 50(I_C 1ma, I_F 0).

Stock No.	Mfr's Type	Detector Iceo (nA) @If 0, Vce 10V	Coupled DC Transfer Ratio% @If 10mA, Vce 10V	Coupled tr or tf (μsec.) RL 190 Ω, Ice 2mA Vcc 10V	EACH 1-24	25-99	100-Up
751-5000	CLI-2	25nA	30 min 100 max	5 max	4.50	3.60	3.01
751-5010	CLI-3	25nA	100 min 200 max	5 max	9.63	7.70	6.43



SILICON NPN PLANAR EPITAXIAL PHOTOTRANSISTORS

Fig. F TO-18, Fig. G Ideal for PC. I_C 200mA. **CLT2010-2020.** Hermetic. High illumination sensitivity, stable. P_T 250mW. t_r/t_f 3 μsec. Window. **CLR2060.** Darlington flat window. P_T 250mW. t_r 100 μsec. t_f 150. **CLR2180.** Darlington lens. P_T 250mW. t_r 100, t_f 150. **CLT3030.** Flat window. P_T 50mW. t_r/t_f 1.5. **CLT3170.** Lens. P_T 50mW. t_r/t_f 1.5.

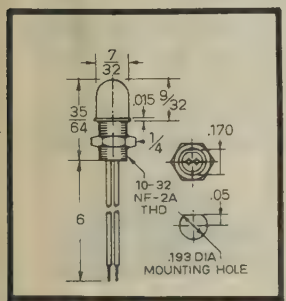
Stock No.	Mfr's Type	Fig.	IL (mA) min/max @ Conditions	BVceo min @ Ic	Vce (SAT) @ Ic mA	EACH 1-24	25-99	100-Up
751-2540	CLT2010	F	0.2/0.6 @ Vce 5, H 5mW/cm²	50 @ 0.1mA	0.30 @ 10	3.63	2.90	2.06
751-2550	CLT2020	F	0.4/1.2 @ Vce 5, H 5mW/cm²	30 @ 0.1mA	0.30 @ 10	3.88	3.10	2.59
751-2560	CLT2030	F	1.0/3.0 @ Vce 5, H 5mW/cm²	30 @ 0.1mA	0.30 @ 10	4.40	3.52	2.94
751-2520	CLR2180	F	0.6/ @ Vce 5, H 0.02mW/cm²	40 @ 0.1mA	1 @ 10	5.63	4.50	3.76
751-3170	CLT3170	G	2.0/ @ Vce 5, H 5mW/cm²	40 @ 0.1mA	0.3 @ 0.4	6.38	5.10	4.26

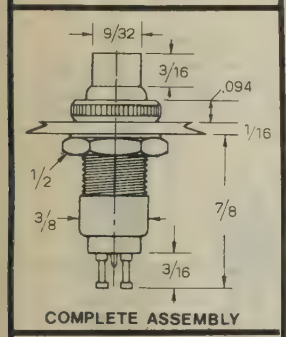
Write, Phone or Wire Allied Electronics for Larger-Quantity Prices

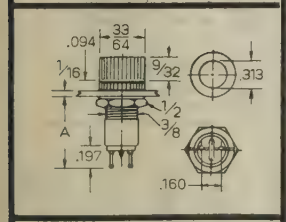
Indicator Lights

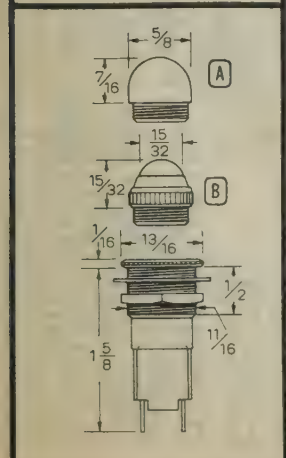
INDICATOR LIGHT CROSS-REFERENCE

DRAKE Part No. Series	DIALCO Part No. Series	LITTELFUSE Part No. Series
6026-001-704	252-9951-0971	.....
4422-000 and 4426-000	508-7538-504	910-211X-241XX
5201-492-326 5201-492-307	52-1059 81-1059 and 95-1059	....
11-607 14-607 16-607 17-607	507-3907 507-3914 507-3918 507-3917	900-115X-182RT 900-103X-182RT 900-101X-182RT 900-104X-122RT
5201-755 5201-756 5201-235 5201-236	52-0408 95-0408 52-0463 52-1308	930-414C-640WN 930-414R-640RN 930-514C-640WN 930-514R-640RN
5131-038-303	162-8430-093X	920-401X-310RN
6182-100-603	249-7841-143X-603	.....
5201-225-105	81-0410-011X-201	930-414X-884RO
5100-822-105 5100-822-303	81-9110-011X-102 95-9110-093X-102	....









SUBMINIATURE INDICATOR LIGHTS

Mounts from front of panel in .193" clearance hole; 5/32" maximum panel thickness. Sealed, moisture and dustproof; T-1 bulb is permanently enclosed. High impact translucent plastic cap. Stovepipe style lens. Wire leads. Anti-rotation construction. Rating: 5 volts at .06 A (60,000 hours life). Conforms to MIL-L-3661B and Drawing MS25446.

Stock No.	Mfr's Type	Lens Color	EACH 1-9	EACH 10-Up
616-2700	6026-001-704R	Red	4.85	3.29
616-2710	6026-001-704G	Green	4.85	3.29
616-2720	6026-001-704A	Amber	4.85	3.29

ULTRAMINIATURE INDICATOR LIGHTS
INCANDESCENT PLUG-IN DATALAMP CARTRIDGES

Aluminum housing with clear anodized finish. Stainless steel pins mounted to nylon insulated header, offset to provide polarization. Heat-resistant, high-strength plastic lens is permanently attached to open end of housing. Short cylindrical lens shape. For 10-volt operation at 40 mA. Life, 10,000 hours. Candlepower, .08. Includes wire-lead T-1 3/4 lamp. Fits Series 4422 and 4426 holders below.

Stock No.	Mfr's Type	Lens Color	EACH 1-9	EACH 10-Up
770-1481	507-3911-1431-600	Red	3.62	2.61
770-1482	507-3911-1432-600	Green	3.62	2.61
770-1483	507-3911-1433-600	Amber	3.62	2.61
770-1484	507-3911-1434-600	Blue	3.62	2.61

ULTRAMINIATURE CARTRIDGE HOLDERS

Mounts from rear of panel in 3/8" diameter hole; 7/32" maximum panel thickness except type 4422-000, 3/8" max. thickness. All except 4422-000 have screw-on collar to retain cartridge. Cadmium plated spring brass terminals except solder cup type are "tintalated" spring brass. Fits macrodome, flush, long cylindrical or short cylindrical cartridge (4426-007 fits only short cylindrical). *NOTE:* These holders accept incandescent plug-in Datalamp cartridges listed on this page, plus 616-401X, 616-411X, 616-431X and 616-441X series cartridges.

Stock No.	Mfr's Type	Terminals	Back of Panel	EACH 1-9	EACH 10-Up
616-4800	4422-000	Flat lugs	13/32"	1.07	.73
616-4810	4422-001	Flat lugs	19/32"	1.22	.83
616-4820	4426-001	Solder cup	19/32"	1.77	1.21
616-4830	4426-007	Solder cup	1 1/4"	1.80	1.24

INCANDESCENT INDICATOR LIGHT ASSEMBLIES

Mounts in 11/16" diameter hole; 5/16" maximum panel thickness. Accepts T-2 TSB lamp (not included); 6-120 volts AC. Screw-in cap. Solder terminals. Fig. A is translucent stovepipe lens; Fig. B is stovepipe lens (internal fluted).

Stock No.	Mfr's Type	Lens Type	Lens Color	EACH 1-9	EACH 10-Up
616-2805	5201-492-326R	B	Red	2.25	1.53
616-2810	5201-492-307R	A	Red	2.25	1.53
616-2820	5201-492-307G	A	Green	2.25	1.53
616-2830	5201-492-307A	A	Amber	2.25	1.53

INCANDESCENT PLUG-IN DATALAMP CARTRIDGES

Aluminum housing with clear anodized finish. Stainless steel pins mounted in nylon insulated header, offset to provide polarization. Heat-resistant, high-strength plastic lens permanently attached to open end of housing. Fig. C short cylin. lens shape; Fig. D plano convex lens; Fig. E flat lens. For 6.3, 14 or 28-volt operation. All include wire-lead T-1 3/4 lamps.

NOTE: Incandescent Plug-in Datalamp Cartridges fit Series 4422 and 4426 Holders on this page.

Stock No.	Mfr's Type	Fig.	V	Candlepower	Color	EACH 1-9	EACH 10-Up
616-8000	16-607R	C	6.3	.03	Red	2.10	1.51
616-8005	16-607G	C	6.3	.03	Green	2.10	1.51
616-8010	14-607R	C	14.0	.30	Red	2.55	1.83
616-8015	14-607G	C	14.0	.30	Green	2.55	1.83
616-8020	14-607A	C	14.0	.30	Amb(Yel)	2.55	1.83
616-8025	14-607W	C	14.0	.30	White	2.55	1.83
616-8030	17-507R	E	28.0	.30	Red	2.55	1.83
616-8035	17-507G	E	28.0	.30	Green	2.55	1.83
616-8040	17-507A	E	28.0	.30	Amb(Yel)	2.55	1.83
616-8045	17-507W	E	28.0	.30	White	2.55	1.83
616-8050	17-607R	C	28.0	.30	Red	2.55	1.83
616-8055	17-607G	C	28.0	.30	Green	2.55	1.83
616-8060	11-607R	C	28.0	.34	Red	2.10	1.51
616-8065	11-607G	C	28.0	.34	Green	2.10	1.51
616-8070	11-607A	C	28.0	.34	Amb(Yel)	2.10	1.51
616-8075	11-607B	C	28.0	.34	Blue	2.10	1.51
616-8080	11-607W	C	28.0	.34	White	2.10	1.51
616-8085	11-607A	C	28.0	.34	Amb(Yel)	2.10	1.51
770R1593	507-5824-0747-600	D	28.0	.34	Clear	3.38	2.70

OPEN INDICATOR ASSEMBLIES
1" OPEN PLATED ASSEMBLY

Mounts in 1" dia. hole. Lens diameter, 1" Flat, convex, faceted lens. Solder terminals. Type 3214 accommodates S-6 incandescent bulb with candelabra screw base. Type 3241 accommodates T-3¼ miniature bayonet base bulb. Voltage: 6-145 V.

Stock No.	Mfr's Type	Lens Color	EACH 1-9	EACH 10-Up
770-1430	502-3214-0431-302	Red	3.12	2.50
770-1440	502-3241-0431-302	Red	2.98	2.38
770-1441	502-3241-0432-302	Green	2.98	2.38
770-1442	502-3241-0433-302	Amber	2.98	2.38

½" MINIATURE OPEN ASSEMBLY

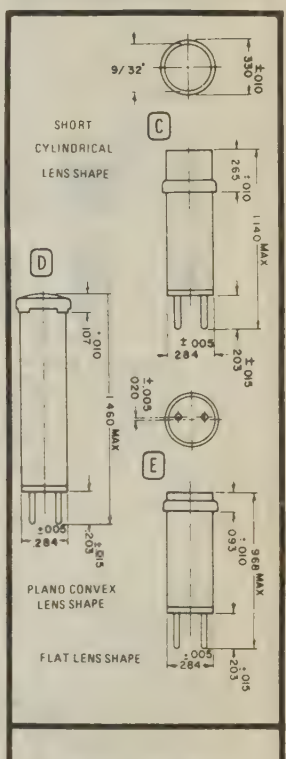
Mounts in 11/16" dia. hole; ½" lens diameter. Convex, faceted lens. Fits T-3¼ midget bayonet base bulb; 2 to 55 volts. Bulb removable from front. Solder terminals. Less bulb.

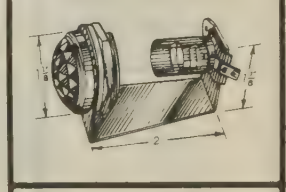
770-1444	502-8136-2131-102	Red	2.04	1.63

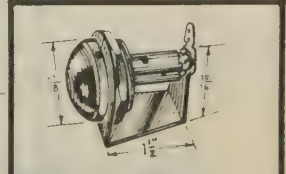
OPEN-TYPE BAYONET INCANDESCENT LIGHT HOLDER

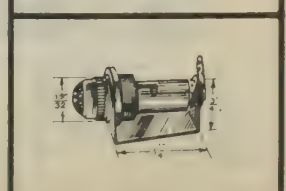
Miniature bayonet socket for T-3¼ lamp. Requires 11/16" diameter mounting hole in panels up to ¼" thick. Lamp not included.

Stock No.	Mfr's Type	Lens Color	EACH 1-9	EACH 10-Up
616-0400	5050-113R-I/L	Red	1.15	.82
616-0413	5050-113G-I/L	Green	1.15	.82
616-0420	5050-113A-I/L	Amber	1.15	.82



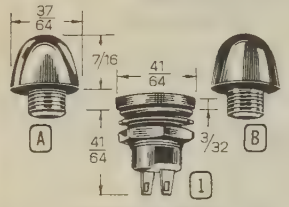




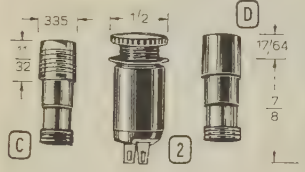


Indicator Lights

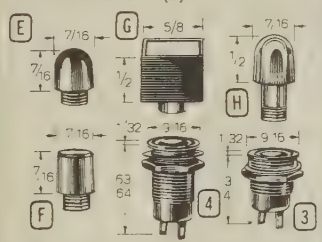
"M.F." MIDGET FLANGED INDICATOR LIGHTS



"M.F." Waterproof Military MIL-STD-202 and MIL-L-3661B. Waterproof 15 lb/sq. in.; with Neoprene "O" rings. Transparent (A); translucent (B).

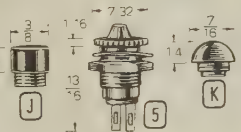


Easy Mount "M.F." Mount from rear pan. Only one nut to secure. Incand. Fresnel lined lens (C) or translucent lens (D).



"M.F." Commercial & Military incand. and neon T-1¾. Front mt. Alum. Blk. anodized body. Both lugs insulated. *indicates MIL-L-3661B. Incand. lenses (E,F,G,); neon transparent (H). Lamps not included. **Specify color:** b,c,g,r, w,y. #**Blue & Green not Available With Neon.**

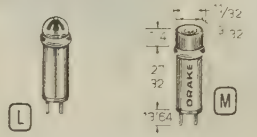
"TINYLITES" MIDGET SCREW BASE



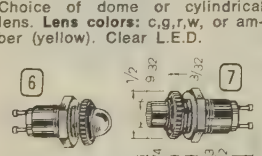
Economical, high quality; front replaceable lamp included; mounts from front pnl. 3 voltages. U.L. Recognized. **Specify colors:** b,c,g, r,w, or amber (yellow).

SOLID STATE LED'S

Specify Lens Colors For These Two Types



Solid State Indicator Lights mnt. from rear pnl. 180° view angle. Choice of dome or cylindrical lens. **Lens colors:** c,g,r,w, or amber (yellow). Clear L.E.D.



Solid State-Cartridge Lamp fits compatible 4422 and 4426 Series cartridge lampholders or may be connected directly to circuitry. **Lens colors:** c,g,r, or amber (yellow). Clear L.E.D.

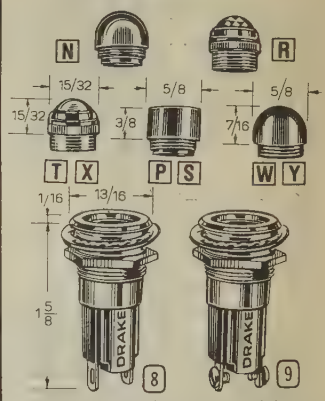
HOW TO ORDER

SELECT INDICATOR BY PHOTO CODE NUMBER AND TABLE BELOW. COMPLETE STOCK NUMBER FOR LENS. Fill in the X in Stock number for Lens color, using the digits in this color code: **Amber (yellow) (a)=1; Blue (b)=2; Clear (c)=3; Green (g)=4; Red (r)=5; White (w)=6.** Picture captions show the colors available in each type. **Note: Blue and Green Not Available With Neon.**

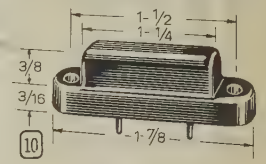
Stock No.	Mfr's Type	Fig. Code	Volts	Desc.‡	Min. Ctrs.	Max. Panel Thk.	EACH 1-9	10-24	25-Up
616-551X	*5139-038-403	1-A	0-28	Incand.	3/4	7/32	3.20	2.17	1.94
616-552X	*5139-038-404	1-B	0-28	Incand.	3/4	7/32	3.20	2.17	1.94
616-561X	5154-036-804	2-D	0-28	Incand.	5/16	1/8	2.17	1.48	1.33
616-562X	5154-036-833	2-C	0-28	Incand.	5/16	1/8	2.17	1.48	1.33
616-571X	5156-036-909	3-G	0-28	Incand.	3/4	1/64	2.73	1.84	1.66
616-531X	5131-036-304	3-E	0-28	Incand.	3/4	17/64	1.86	1.26	1.13
616-532X	5131-036-604	3-F	0-28	Incand.	3/4	17/64	1.86	1.26	1.13
616-535X	*5131-038-304	3-E	0-28	Incand.	3/4	17/64	2.22	1.51	1.36
616-536X	*5131-038-604	3-F	0-28	Incand.	3/4	17/64	2.22	1.51	1.36
616-541X	5133-046-703	4-H	120	Neon(62K)	3/4	1/2	3.45	2.33	2.09
616-543X	5133-046-703	4-H	120	Neon(62K)	3/4	1/2	3.32	2.27	2.04
616-545X	5133-056-703	4-H	120	Neon(27K)	3/4	1/2	3.45	2.33	2.09
616-547X	5133-058-703	4-H	120	Neon(27K)	3/4	1/2	3.35	2.27	2.04
616-501X	5126-022-204	5-K	7	Incand.	19/32	1/4	1.74	1.18	1.06
616-502X	5126-022-604	5-J	7	Incand.	19/32	1/4	1.74	1.18	1.06
616-511X	5127-022-204	5-K	14	Incand.	19/32	1/4	1.74	1.18	1.06
616-512X	5127-022-604	5-J	14	Incand.	19/32	1/4	1.74	1.18	1.06
616-521X	5128-022-204	5-K	28	Incand.	19/32	1/4	2.24	1.50	1.35
616-522X	5128-022-604	5-J	28	Incand.	19/32	1/4	2.24	1.50	1.35
616-611X	6200-102-393	6	2.2	LED	5/16	3/32	3.77	2.31	2.06
616-621X	6200-102-693	7	2.2	LED	5/16	3/32	3.77	2.31	2.06
616-651X	6201-102-393	6	5	LED	5/16	3/32	3.85	2.62	2.35
616-661X	6201-102-693	7	5	LED	5/16	3/32	3.85	2.62	2.35
616-691X	6204-102-393	6	14	LED‡	5/16	3/32	3.85	2.62	2.35
616-701X	6204-102-693	7	14	LED‡	5/16	3/32	3.85	2.62	2.35
616-711X	6206-102-393	6	28	LED‡	5/16	3/32	3.85	2.62	2.35
616-721X	6206-102-693	7	28	LED‡	5/16	3/32	3.85	2.62	2.35
616-401X	31-393	L	2.2	LED	.....	.....	2.27	1.56	1.40
616-411X	31-693	M	2.2	LED	.....	.....	2.27	1.56	1.40
616-421X	32-393	L	5	LED	.....	.....	2.67	1.82	1.63
616-431X	32-693	M	5	LED	.....	.....	2.67	1.82	1.63
616-441X	35-393	L	14	LED‡	.....	.....	2.67	1.82	1.63
616-451X	35-693	M	14	LED‡	.....	.....	2.67	1.82	1.63
616-461X	37-393	L	28	LED‡	.....	.....	2.27	1.82	1.63
616-471X	37-693	M	28	LED‡	.....	.....	2.27	1.82	1.63
616-200X	5201-222-105	8-X	0-120	Incand.	31/32	13/32	2.50	1.70	1.53
616-201X	5201-222-106	8-T	0-120	Incand.	31/32	13/32	2.50	1.70	1.53
616-202X	5201-222-110	8-R	0-120	Incand.	31/32	13/32	2.50	1.70	1.53
616-203X	5201-222-307	8-N	0-120	Incand.	31/32	13/32	2.19	1.49	1.34
616-205X	5201-222-607	8-P	0-120	Incand.	31/32	13/32	2.19	1.49	1.34
616-210X	5201-222-607	9-W	0-120	Incand.	31/32	13/32	2.71	1.83	1.65
616-211X	5201-223-106	9-T	0-120	Incand.	31/32	13/32	2.71	1.83	1.65
616-212X	5201-223-110	9-R	0-120	Incand.	31/32	13/32	2.71	1.83	1.65
616-214X	5201-223-326	9-W	0-120	Incand.	31/32	13/32	3.50	2.37	2.13
616-215X	5201-223-607	9-P	0-120	Incand.	31/32	13/32	2.19	1.49	1.34
616-221X	5201-232-323	8-Y	#120	Neon(22K)	31/32	13/32	2.37	1.61	1.45
616-222X	5201-232-603	8-S	#120	Neon(22K)	31/32	13/32	2.37	1.61	1.45
616-231X	5201-233-323	9-Y	#120	Neon(22K)	31/32	13/32	2.60	1.76	1.58
616-232X	5201-233-603	9-S	#120	Neon(22K)	31/32	13/32	2.60	1.76	1.58
616-241X	5201-242-323	8-Y	#250	Neon(100K)	31/32	13/32	2.38	1.61	1.45
616-242X	5201-242-603	8-S	#250	Neon(100K)	31/32	13/32	2.38	1.61	1.45
616-251X	5201-243-323	9-Y	#250	Neon(100K)	31/32	13/32	2.60	1.76	1.58
616-252X	5201-243-603	9-S	#250	Neon(100K)	31/32	13/32	2.60	1.76	1.58
616-261X	5201-252-323	8-Y	#250	Neon(330K)	35/32	13/32	2.60	1.76	1.58
616-355X	6103-000-924	10	120	Neon(25K)	1 1/4	1 1/32	1.00	.68	.61
616-110X	5160-458-604	11	0-28	Incand.	15/32	7/32	3.53	2.39	2.15
616-262X	5201-252-603	8-S	#250	Neon(330K)	13/32	31/32	2.60	1.76	1.58
616-305X	6053-000-023	12	120	Neon(33K)	1/8	9/16	1.62	1.10	.98
616-310X	6063-000-534	13§	120	Neon(25K)	17/32	1 5/16	1.00	.68	.61
616-311X	6063-000-634	14§	120	Neon(25K)	17/32	1 3/8	1.00	.68	.61
616-315X	6063-001-534	13**	120	Neon(25K)	17/32	1 5/16	1.00	.68	.61
616-316X	6063-001-634	14**	120	Neon(25K)	17/32	1 1/8	1.00	.68	.61
616-320X	6065-000-534	13§	250	Neon(100K)	17/32	1 5/16	1.00	.68	.61
616-321X	6065-000-634	14§	250	Neon(100K)	17/32	1 3/8	1.00	.68	.61
616-325X	6065-001-534	13**	250	Neon(100K)	17/32	1 5/16	.90	.62	.56
616-326X	6065-001-634	14**	250	Neon(100K)	17/32	1 1/8	.90	.62	.56
616-330X	6073-000-534	15§	120	Neon(25K)	11/16	5/64	1.10	.75	.67
616-331X	6073-000-634	17§	120	Neon(25K)	11/16	5/64	1.10	.75	.67
616-335X	6073-001-534	15**	120	Neon(25K)	11/16	5/64	1.04	.70	.63
616-336X	6073-001-634	17**	120	Neon(25K)	11/16	5/64	1.04	.70	.63
616-340X	6075-000-534	15§	250	Neon(100K)	11/16	5/64	1.10	.75	.67
616-341X	6075-000-634	17§	250	Neon(100K)	11/16	5/64	1.10	.75	.67
616-345X	6075-001-534	15**	250	Neon(100K)	11/16	5/64	1.04	.70	.63
616-346X	6075-001-634	17**	250	Neon(100K)	11/16	5/64	1.04	.70	.63
616-361X	6243-000-596	16§	120	Neon(22K)	..	3/4	1.09	.74	.66
616-365X	6243-001-596	16**	120	Neon(22K)	...	3/4	1.03	.69	.62
616-371X	6245-001-596	16**	250	Neon(100K)	...	3/4	1.03	.69	.62
616-381X	6483-001-583	18§§	120	Neon(33K)	7/16	...	.98	.67	.60
616-385X	6483-401-603	19§§	120	Neon(33K)	7/16	...	.98	.67	.60
616-391X	6493-001-583	18##	120	Neon(33K)	7/16	...	.86	.58	.52
616-395X	6493-401-603	19##	120	Neon(33K)	7/16	...	.86	.58	.52

*Military Indicator lights. †For Neon types, value of built-in resistor is indicated. ‡Not available with green or yellow lens. #Neon types not available with blue or green lens. **Wire Terminal, §Solder Terminal. §§Chrome mount, ##Plastic mount.

"DELUXE MOLDED" INDICATOR LIGHTS

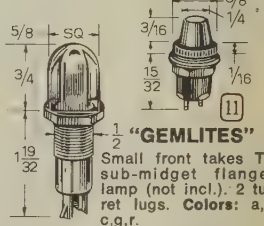


"Deluxe Molded" indicator lights assured dependability; fine appearance; Min. Bay. base, incand. and neon lamps T-3¼ (not included). Neon units have built-in resistor. Solder or screw lugs; phenolic housing; polished chrome finish. Mount units and install lamps from front panel. **Colors:** b,c,g,r, w or amber (yellow). #**Blue and Green Not Available With Neon.**



"FLUSHLITES"

"One of a Kind" with a rectangular nylon housing; built-in neon lamp with 25k resistor. **Specify colors:** a,r, or w. U.L. recognized.

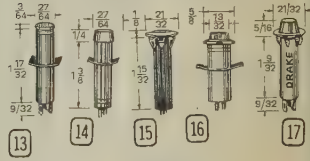


"GEMLITES"

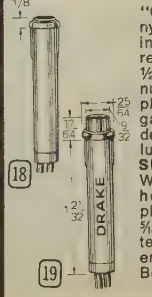
Small front takes T-1 sub-midget flanged lamp (not incl.). 2 turret lugs. **Colors:** a,b, c,g,r.

"POSTLITES"

Wide angle viewing units. Built-in Hi-Brite Neon lamp with resistor. Front panel mount. **Colors:** a,c,r.

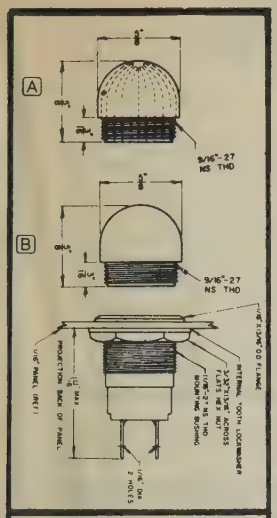


"GLO-LITES" AND "SLENDER GLO-LITES"



"Glo-lites." One-pc. nylon body, lens; built-in, Hi-Brite neon lamp, resistor. Mt. in ⅜" or ½" hole; Tinnerman nut or snap-in chrome plug bottom. Two 22 ga. wire leads or solder and quick connect lugs. **Colors:** g,r,w,a. **Slender "Glo-lites."** White, nylon, press-fit housing, chrome or plastic bezel mt. in 5/16" dia. hole; 7/16" centers. Lenses transparent. **Colors:** c,g,r,w,a. Both U.L. recognized.

Indicator Lights and Accessories



NEON INDICATORS WITH BUILT-IN RESISTORS

Series 755-303, 235-303. For T-3¼ neon lamp. Meet MIL specs. Stovepipe lens. 2¹⁄₁₆" long; ¹³⁄₃₂" max. panel thickness. U.L. Component Recognized; C.S.A. Listed. Solder terminals. AC-DC. **Series 755-323, 235-323.** Fluted stovepipe lens. MIL-L-3661. ¹¹⁄₁₆" max. panel thickness. Solder terminals. Type 755-323 has 56k resistor for B1A (NE-51) lamp; 235-323 has 22k resistor for B2A (NE-51H) high-brightness lamp.
756-323, 236-323. As above, but screw terminals.

Stock No.	Type 5201-	Lens Fig.	Lens Color	Bulb Type	Voltage Range	EACH 1-9	EACH 10-Up
616-5800	755-303R	A	Red	B1A	105-125	2.37	1.61
616-5805	235-303R	A	Red	B2A	110-125	2.37	1.61
616-5810	235-303A	A	Amber	B2A	110-125	2.37	1.61
616-5815	755-323R	B	Red	B1A	105-125	2.37	1.61
616-5820	755-323A	B	Amber	B1A	105-125	2.37	1.61
616-5825	755-323C	B	Clear	B1A	105-125	2.37	1.61
616-5830	235-323R	A	Red	B2A	110-125	2.37	1.61
616-5835	235-323A	A	Amber	B2A	110-125	2.37	1.61
616-5840	756-323R	A	Red	B1A	105-125	2.60	1.76
616-5845	756-323A	A	Amber	B1A	105-125	2.60	1.76
616-5850	236-323R	B	Red	B2A	110-125	2.60	1.76
616-5855	236-323A	B	Amber	B2A	110-125	2.60	1.76

C OIL-TIGHT ASSEMBLIES

Series 103-3502. Accepts S-6 bayonet base lamp; 6-250 V. Front-of-panel insertion in 1" hole; ½" max. panel thickness. Movable screw term. **Series 103-3101.** Accepts S-6 candelabra screw base lamps; 6-250 V. Front-of-panel insertion in 1" hole; 7⁄16" max. thickness. Movable screw term. Lens: back frosted dome, or unfrosted torpedo faceted. Includes gasket for water and oil-tight seal.

Stock No.	Mfr's Type 103-	Lens Style	Lens Color	EACH 1-9	EACH 10-Up
770-0662	3502-1331-403	Torpedo	Red	6.70	4.20
770-0663	3502-1332-403	Torpedo	Green	6.70	4.20
770-0650	3101-1331-403	Torpedo	Red	6.10	3.82
770-0651	3101-1332-403	Torpedo	Green	6.10	3.82
770-0652	3101-1333-403	Torpedo	Amber	6.10	3.82
770-0654	3101-1211-403	Dome	Red	6.10	3.82
770-0655	3101-1212-403	Dome	Green	6.10	3.82
770-0657	3101-1235-403	Dome	White	6.10	3.82

D OIL-TIGHT INDICATOR LIGHTS

Front-of-panel mtg. in 1¹⁄₁₆" hole; 5⁄16" max. panel thickness. Accepts B2A (NE-51H) neon bulb; 110-125 VAC. Stovepipe lens, solder term. Built-in resistor.

Stock No.	Mfr's Type	Lens Color	EACH 1-9	EACH 10-Up
770-0730	125-0463-1193-413	Amber	4.84	2.84

G INSULATED INDICATOR LIGHTS

Series 5131-038. Mount in ¹³⁄₃₂" hole. Front of panel insertion with fixed flange. 180° visibility. Accept T-1 ¾ lamps; 1.35-28 V. Phenolic insulation. Anti-rotation design. †Suffix of **MIL No. MS2526-**

TRANSPARENT LENS TYPE

Stock No.	Mfr's Type	†	Lens Color	EACH 1-9	EACH 10-Up
616-5355	5131-038-303R-I/L	6	Red	2.22	1.51
616-5354	5131-038-303G-I/L	4	Green	2.22	1.51
616-5351	5131-038-303A-I/L	2	Amber	2.22	1.51
616-5353	5131-038-303C-I/L	8	Clear	2.22	1.51
616-5356	5131-038-303W-I/L	10	White	2.22	1.51
616-5352	5131-038-303B-I/L	12	Blue	2.22	1.51

TRANSLUCENT LENS TYPE

616-5358	5131-038-304R-I/L	..	Red	2.22	1.51
616-5357	5131-038-304G-I/L	..	Green	2.22	1.51
616-5359	5131-038-304A-I/L	..	Amber	2.22	1.51

NEON INDICATORS—OMNIDIRECTIONAL LENS

Series 5133-048-703. Uses T-2 neon lamp with built-in 62k resistor. Lamps not included.

616-5435	5133-048-703R-I/L	..	Red	3.32	2.27
616-5431	5133-048-703A-I/L	..	Amber	3.32	2.27
616-5434	5133-048-703G-I/L	..	Green	3.32	2.27

H PERMANENT NEON INDICATOR LIGHTS

Ultraminiature lights mount from rear in 3⁄8" hole; 5⁄16" max. panel thickness. 105-125 V AC-DC. Standard brightness with built-in 100k resistor. Turret terminals. Cylindrical lens.

616-6030	6182-100-603R	Red	2.52	1.72
616-6035	6182-100-603A	Amber	2.52	1.72
616-6040	6182-100-603W	White	2.52	1.72

J ULTRAMINIATURE INCANDESCENT INDICATOR LIGHTS

Mount in 3⁄8" hole from back of panel; ¹¹⁄₃₂" max. panel thickness. Cylindrical lens. Turret terminals. 115-125 VAC. Fresnel lens. Screw-on cap.

Stock No.	Mfr's Type	Lens Color	EACH 1-9	EACH 10-Up
770-1260	250-8758-3331-504	Red	3.56	2.09

K SUBMINIATURE LIGHT HOLDERS

Mount from front of panel in ¹³⁄₃₂" hole; 3⁄16" max. panel thickness. Accepts T-1 ¾ midget flange base bulb; 1.35-28 V. Round lens. Friction-fit cap. Solder terminals. Anti-rotation design.

770-1037	183-9730-14-602	...	2.08	1.29

L 11/16" MOUNTING CLEARANCE LIGHTS FOR T-3¼ BAYONET LAMPS

Mounts from front of panel in 1¹⁄₁₆" hole; 5⁄16" max. panel thickness. U.L. Component Program Recognized.

INCANDESCENT ASSEMBLIES

Stock No.	Mfr's Type	Lens Color	EACH 1-9	EACH 10-Up
616-2170	5201-225-105R-I/L	Red	2.70	1.83
616-2172	5201-225-105G	Green	2.70	1.83
616-2175	5201-225-105A	Amber	2.70	1.83
616-2176	5201-225-106W	White	2.70	1.83

LOW-VOLTAGE ENCLOSED-SIGNAL ASSEMBLIES

616-0600	5100-822-105R-I/L	Red	1.57	1.09
616-0605	5100-822-105G-I/L	Green	1.57	1.09
616-0610	5100-822-105A-I/L	Amber	1.57	1.09

LOW-VOLTAGE SIGNAL ASSEMBLIES

616-0620	5100-822-303R-I/L	Red	1.17	.81
616-0625	5100-822-303G-I/L	Green	1.17	.81
616-0630	5100-822-303A-I/L	Amber	1.17	.81
616-0635	5100-822-303W-I/L	White	1.17	.81

M 1" MOUNTING CLEARANCE LIGHTS NON-OIL-TIGHT ASSEMBLIES

Series 32-3101. For 115 V. Black phenolic and brass construction. Faceted lens. Candelabra base. Less S6 lamp. U.L. Component-Program Recognized.

770-0256	32-3101-0431-302	Red	3.42	2.07
770-0257	32-3101-0432-302	Green	3.42	2.07
770-0258	32-3101-0433-302	Amber	3.42	2.07
770-0259	32-3101-0434-302	Blue	3.42	2.07
770-0260	32-3101-0435-302	White	3.42	2.07
770-0261	32-3101-0437-302	Clear	3.42	2.07

N 1" MOUNTING CLEARANCE LIGHTS

Series 32-2901. Enclosed lamp. Convex lens; frosted back. Solid brass. Friction-fit chromed cap. Underwriters' Laboratories Component-Program Recognized. Less S6 lamp. 6" leads.

770-0250	32-2901-0111-302	Red	6.14	5.52
770-0251	32-2901-0112-302	Green	6.14	5.52

PILOT BULB REMOVERS

Type 506-0045. For convenient installation and removal of T-3¼ and S6 lamps. Made of high-grade rubber for solid grip.
770-1470 ..... **Each .40**

Type 506-0073. Has two hollow ends that engage lamps tightly. One end for T-3¼ bulbs, the other for T-4½ bulbs. High-grade rubber.
770-1471 ..... **Each .40**

P ROUND CARTRIDGE CONNECTOR

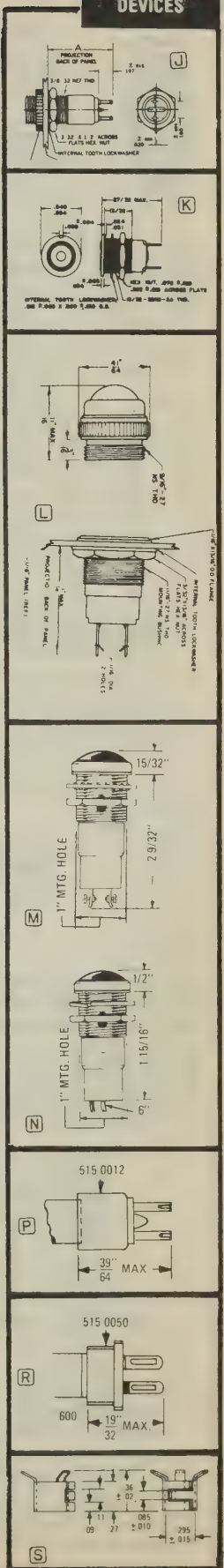
Series 515-0012. Has durable molded phenolic insulation. Precision-made to accept appropriate lamp cartridges. Solder cup terminals.
770-1830. 1-9 ..... **Each 1.47**
10-24.....**Each 1.18** **25-Up**.....**Each .83**

R RECTANGULAR CONNECTOR

Series 515-0050 (300-058). Rugged molded phenolic construction; cadmium-plated copper solder lug terminals. Perfect match for appropriate cartridges.
770-1837. 1-9 ..... **Each .48**
10-24.....**Each .38** **25-Up**.....**Each .32**

S SPEED CLIP CONNECTOR

Series 515-0051 (763). For convenient, fast direct mounting of round plug-in lamp cartridges.
770R1838. 1-9 ..... **Each .25**
10-24.....**Each .20** **25-Up**.....**Each .14**



Indicator Lights

TYPE 90-0410 INDICATOR LIGHT WITH LIGHT SHIELD CAP

Stock No.	Mfr's Type 90-0410-	Fig.	Light Shield Cap	Terminals	EACH 1-9	10-24	25-Up
770-5071	2900-301	1	Push-in cap with snap lock	Solder	3.60	2.18	2.07

SERIES 249-7868 SOLID-STATE DIODE-LITES

*Short stovepipe †Short cylindrical

Stock No.	Mfr's Type 249-7868	Fig.	Lens Color	Ratings V	Ratings mA	EACH 1-9	10-24	25-Up
770-2419	3731-504*	2	Red	5	20	3.84	2.39	2.21
770-2421	3732-504*	2	Grn.	5	20	3.84	2.39	2.21
770-2423	3733-504*	2	Amb (Yel)	5	20	3.84	2.39	2.21
770-2455	3735-504*	2	White	5	20	3.84	2.39	2.21
770-2457	3737-504*	2	Clear	5	20	3.84	2.39	2.21
770-2431	3331-504†	3	Red	5	20	3.84	2.39	2.21
770-2432	3332-504†	3	Grn.	5	20	3.84	2.39	2.21
770-2433	3333-504†	3	Amb (Yel)	5	20	3.84	2.39	2.21
770-2435	3335-504†	3	White	5	20	3.84	2.39	2.21
770-2459	3337-504†	3	Clear	5	20	3.84	2.39	2.21

SERIES 359-8430 WITH OMNIDIRECTIONAL LENS

Stock No.	Mfr's Type 359-8430-	Fig.	Lens Cap Shape	Lens Type	EACH 1-9	10-24	25-Up
770-1340	0971-502	4	Stovepipe	Translucent	2.60	1.52	1.40
770-1342	1471-502	5	Cylindrical	Translucent	2.60	1.52	1.40
770-1344	1431-502	5	Cylindrical	Transparent	2.60	1.52	1.40

SERIES 8-1930 NON-DIMMING INDICATOR LIGHTS

Stock No.	Mfr's Type 8-1930-	Fig.	Lens Color	Terminals	EACH 1-9	10-24	25-Up
770-5021	0131-201	6	Red	Solder	2.45	1.77	1.61
770-5022	0131-201	6	Grn.	Solder	2.45	1.77	1.61
770-5023	0131-201	6	Amb.	Solder	2.45	1.77	1.61
770-5024	0131-201	6	Blue	Solder	2.45	1.77	1.61
770-5025	0131-201	6	White	Solder	2.45	1.77	1.61

SERIES 183-9830 INCANDESCENT INDICATOR LIGHTS

Front or Rear Mtg. in 15/32" Clearance Hole

Stock No.	Mfr's Type 183-9830-	Fig.	Lens Color	EACH 1-9	10-24	25-Up
770-5001	1471-604	7	Red	2.82	2.05	1.91
770-5002	1472-604	7	Green	2.82	2.05	1.91
770-5003	1473-604	7	Amb (Yel)	2.82	2.05	1.91
770-5004	1474-604	7	Blue	2.82	2.05	1.91
770-5005	1475-604	7	White	2.82	2.05	1.91

SERIES 271-8430 SUBMINIATURE FOR PANEL EDGE LIGHTING

Stock No.	Mfr's Type 271-8430	Fig.	MIL-L-3661B LH92/1;	Filter Color	Top Color	Light Seal Washer-Opaque	EACH 1-9	10-24	25-Up
770-5051	0111-702	8	LC34EN2 DO2	Red	Black	Black	3.35	1.65	1.51
770-5052	0111-702	8	LC34EN2 DO2	Grn.	Black	Black	3.35	1.65	1.51
770-5053	0111-702	8	LC34EN2 DO2	Amb.	Black	Black	3.35	1.65	1.51
770-5054	0111-702	8	LC34EN2 DO2	Blue	Black	Black	3.35	1.65	1.51
770-5055	0111-702	8	LC34EN2 DO2	White	Black	Black	3.35	1.65	1.51

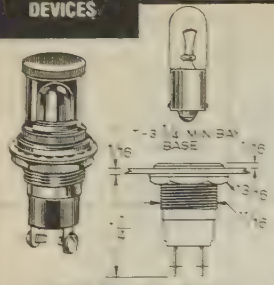
SERIES 250-8738 DATALITES®

Stock No.	Mfr's Type 250-8738	Fig.	For Lamp	Lens Finish	Accepts Data Lamp Cartridges	EACH 1-9	10-24	25-Up
770-2610	1431-504	9	Incand. & Neon	Transparent	Short cyl., Flat	3.22	2.09	1.94
770-2612	1471-504	9	Incand. & Neon	Translucent	Short cyl., Flat	3.22	2.09	1.94
770-2614	3331-504	9	Incand. & Neon	Fresnel	Short cyl., Flat	3.22	2.09	1.94
770-2616	1531-504	9	Incand. & Neon	Transparent	Long cyl., Stovepipe	3.22	2.09	1.94
770-2618	1571-504	9	Incand. Only	Translucent	Long cyl., Stovepipe	3.22	2.09	1.94
770-2620	1631-504	9	Incand. & Neon	Fresnel	Long cyl., Stovepipe	3.22	2.09	1.94
770-2622	1471-504	9	Incand. Only	Translucent	Plano covex	3.22	2.09	1.94
770-2624	3331-504	9	Incand.	Fresnel	Plano covex	3.22	2.09	1.94
770-2626	14-504	10	Incand. LED or Neon	Base Assembly Only		2.20	1.57	1.45

SNAP-IN NEON INDICATOR LIGHT AND FLASHER

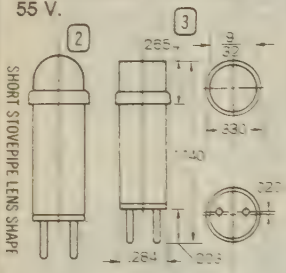
Series 539 is a flashing indicator (130 flashes per minute); Series 538 is matching indicator. Uses C2A (NE-2H) neon lamp. Snap-in mounting in .775" hole, in panels to 3/16" thick. For 110-125 VAC. Solderable terminals. Built-in resistor.

Stock No.	Mfr's Type	Lens Color	EACH 1-9	10-Up
770-2006	539-1544-1891-001	Red	8.55	6.84



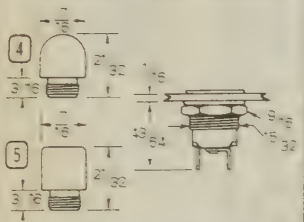
1 TYPE 90-0410 LIGHT WITH SHIELD CAP

Mounts in 11/16" hole from front of panel; 3/32" max. panel thickness. Takes T-3¼ min. bayonet base lamp, 2-55 V.



SERIES 249-7868 ULTRAMINI SOLID-STATE DIODE-LITES

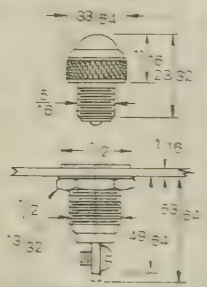
Mounts from rear of panel in 3/8" hole; 5/16" max. panel thickness. Includes LED and fresnel transparent lens. IC compatible. Turret terminal.



SERIES 359-8430 INCANDESCENT LIGHTS

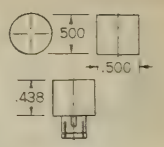
With Omnidirectional Lens

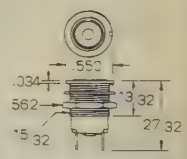
Mounts in 15/32" hole from front of panel; 3/16" max. panel thickness. Takes T-1 ¾ MFB lamp, 1.34-28 V. Meets MIL-L-3661B.



6 SERIES 8-1930 NON-DIMMING INDICATOR LIGHTS

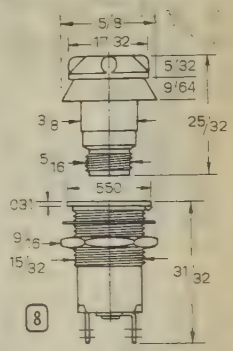
Mounts from front of panel in 15/32" hole; 3/8" max. panel thickness. Takes T-1 ¾ mid midget flange base lamp, 1.35-28 V. Convex lens. Black nickel finish.





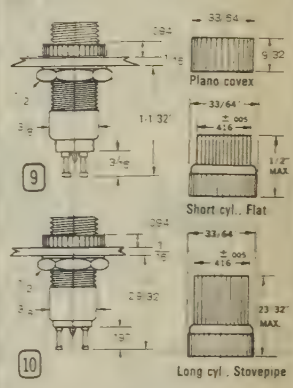
7 SERIES 183-9830 INCANDESCENT INDICATOR LIGHTS

Same as 183-9730, but mounts from front or rear of panel in ½" hole; 1/8" max. panel thickness. Available with non-rotatable sq. lens cap.



SERIES 271-8430 SUBMINI INDICATOR LIGHTS

For Translucent Panel Edge Lighting. Mounts from front of panel in 15/32" hole; ¼" max. panel thickness. Takes T-1 ¾" midget flange base lamp, 1.35-28 V. Solder terminal.

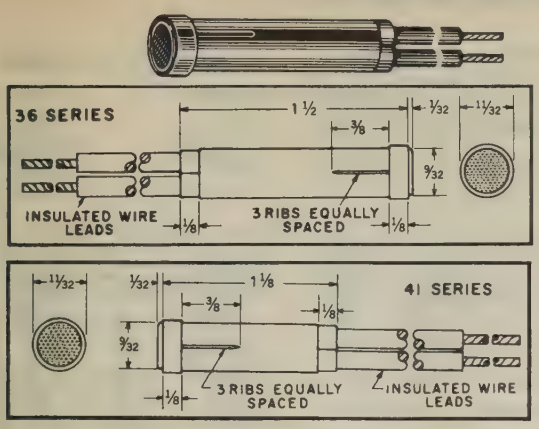


SERIES 250-8738 DATALITES®

Mounts from rear of panel in 3/8" hole; 3/16" max. panel thickness. Rotatable lens, turret terminals. With screw-on cap. Accepts plug-in Datalamp cartridges. Choice of lens: transparent, translucent, or transparent with internal fresnel diffusing rings.

MINIATURE NEON INDICATOR LIGHTS

Built-in Resistor to Suit Applied Voltage



High-brightness miniature neon indicator lamps give long reliable performance at a very low price. Wrapped in white nylon housing. Built-in resistor to suit applied voltage. Press-fit easily into 5/16" hole. Choose between flush-mounting or hi-hat lens; red, amber, white or clear lens. When on, all glow red. Plastic insulated 6" leads, 18-ga., stripped ½". Speed nut for maximum security. ⅓-watt at 125 V. U.L. Component Program-Recognized, and C.S.A. Listed. 1 oz.

STANDARD FLUSH MOUNT

Stock No.	Mfr's Type	Color	EACH 1-24	EACH 25-99	EACH 100-Up
844R6611	36N2311	Red	1.52	1.22	.74
844R6613	36N2313	Amber	1.52	1.22	.74
844R6615	36N2315	White	1.52	1.22	.74
844-6617	36N2317	Clear	1.52	1.22	.74

HI-HAT WITH ALUMINUM BEZEL

844-6400	36EN2111	Red	1.68	1.61	.95
844R6405	36EN2113	Amber	1.68	1.61	.95
844-6410	36EN2115	White	1.68	1.61	.95
844-6415	36EN2117	Clear	1.68	1.61	.95

FLUSH MOUNT WITH ALUMINUM BEZEL

844R6420	36EN2311	Red	1.68	1.61	.95
844-6425	36EN2313	Amber	1.68	1.61	.95
844-6430	36EN2315	White	1.68	1.61	.95

MINIATURE INCANDESCENT INDICATOR LIGHTS

All indicator lights listed have white housings, aluminum bezels and miniature incandescent lamps. Plastic transparent lenses. Black, #18 gauge, insulated plastic leads—6" long, stripped ½". Friction fit in 5/16" mounting hole (.312). Speednuts furnished for maximum security. Recognized under Component Program of U.L. Laboratories. C.S.A. listed. **Specifications: G1.** 6 volts at 200 milliamps. ⅓ watt current. Life: 4000 hour. **G3.** 14 volts at 80 milliamps. ⅓ watt current. Life: 1,500 hours. (Recommended for 12 volts. Life at 12 volts: 12,000 hours.) **G5.** 28 volts at 40 milliamps. ⅓ watt current. Life: 4,000 hours. (Recommended for 24 volts. Life at 24 volts: 32,000 hours.) Be sure to specify Allied Stock Number and complete Manufacturer's Type Number (including 41EN prefix) when ordering. Av. shpg. wt.: 1 oz.

INDICATOR LIGHTS WITH HI-HAT LENS

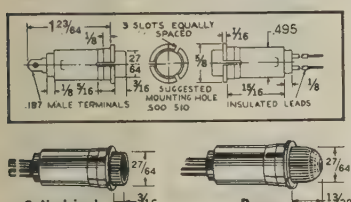
Stock No.	Mfr's Type 41EN-	Rating	Color	EACH 1-24	EACH 25-99	EACH 100-Up
844-7000	G1-2111	6 V @ 200 mA	Red	2.33	1.56	1.00
844-7100	G3-2111	14 V @ 80 mA	Red	2.36	1.59	1.03
844-7110	G3-2113	14 V @ 80 mA	Amber	2.36	1.59	1.03
844R7200	G5-2111	28 V @ 40 mA	Red	2.34	1.57	1.01
844-7205	G5-2112	28 V @ 40 mA	Green	2.34	1.57	1.01
844-7210	G5-2113	28 V @ 40 mA	Amber	2.34	1.57	1.01

INDICATOR LIGHTS WITH FLUSH-MOUNT LENS

844-7130	G3-2311	14 V @ 80 mA	Red	2.34	1.57	1.01
844-7230	G5-2311	28 V @ 40 mA	Green	2.34	1.57	1.01
844-7235	G5-2312	28 V @ 40 mA	Amber	2.34	1.57	1.01
844-7240	G5-2313	28 V @ 40 mA	Blue	2.34	1.57	1.01
844-7245	G5-2313	28 V @ 40 mA	White	2.34	1.57	1.01
844-7250	G5-2314	28 V @ 40 mA	Clear	2.34	1.57	1.01

SNAPLITE NEON PILOT LIGHTS

High-brightness neon lamps. Snap into ½" panel hole, except Series 31, Rectangular: 1.281 x .395" hole. Five lenscap styles—cylindrical, dome-shape, flush, square and rectangular. Built-in resistor, no lamp replacement necessary. Insulated wire leads or 0.187" tab terminals (indicated by "T" in Type No.) ⅓ watt current. Series 32: 110-125 volts. Series 31: 125 or 250 volts. (*) Series 35: 210-250 volts. U.L. Component Program recognized. C.S.A. listed. Average shipping weight: 1½ ounces.



NEON LAMPS—CYLINDRICAL, DOME, FLUSH CAPS

Lens Color	Cylindrical Lens Stock No.	Cylindrical Lens Type 32-	Dome-Shape Lens Stock No.	Dome-Shape Lens Type 32-	Flush Lens Stock No.	Flush Lens Type 32-
Red	844R5100	2111	844-5150	2211	844-5200	2311
Amber	844R5110	2113	844-5160	2213	844-5210	2313
White	844-5120	2115	844-5170	2215	844-5220	2315
Clear	844-5130	2117	.....	.....	.....	.....
Red	844-5105	2111T	844-5155	2211T	.....	.....
Amber	844-5115	2113T	844-5165	2213T	.....	.....
White	844-5125	2115T	.....	.....	.....	.....
Clear	844-5135	2117T	844-5185	2217T	.....	.....
Red	844-6200	2111*	844R6210	2211*	844-6220	2311*

CHROME BEZEL

Lens Color	Cylindrical Lens Stock No.	Cylindrical Lens Type 32-	Dome-Shaped Lens Stock No.	Dome-Shaped Lens Type 32-	Flush Lens Stock No.	Flush Lens Type 32-
Red	844R6000	R2111	.....	.....	844-6040	R2311
Amber	844-6010	R2113	.....	.....	.....	.....
Red	844R6005	R2111T	844-6025	R2211T	844-6045	R2311T
Amber	844-6015	R2113T	.....	.....	844-6055	R2313T

1-24, EA.	25-99, EA.	100-249, EA.	250-Up, EA.
1.67	1.34	.79	.71

NEON LAMPS—RECTANGULAR

Lens	Stock No.	Type 31-	Lens	Stock No.	Type 31-
Red	844-5001	2111T	Amber	844R-5015	2113
Red	844R5005	2111	White	844-5030	2115T

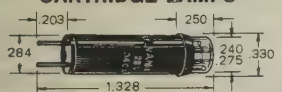
1-24, EA.	25-99, EA.	100-249, EA.	250-Up, EA.
1.52	1.32	.79	.69

SQUARE LENS WITH CHROME BEZEL—110 VOLTS

Lens Color	6" Wire Leads Stock No.	6" Wire Leads Mfr's Type	Tab Terminals Stock No.	Tab Terminals Mfr's Type
Red	844-6060	32R2911	844R6065	32R2911T
Amber	844R6070	32R2913	844R6075	32R2913T
White	844-6080	32R2915	844-6085	32R2915T
Clear	844-6090	32R2917	.....	.....

1-24, EA.	25-99, EA.	100-249, EA.	250-Up, EA.
1.67	1.34	.79	.71

CARTRIDGE LAMPS



Black anodized metal sleeves. Clear ends. Stainless steel, polished pins. Dia., .290" For housings right . Wt. 1 oz.

PILOT LAMPS (For Housings right) Length: 1.110" max., less pins.

Stock No.	Mfr's Type	Volts	Average Watts	Average Amps
937-4010	31	12	2.0	.170
937-4080	51	28	1.1	.040
937-5050	71	60	3.0	.050
937-5060	81	120	3.0	.025

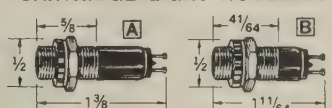
INDICATOR LAMPS (For Housings right Length: 1.912" max., less pins.

Stock No.	Mfr's Type	V	Av. Watts	Current Amperes Min.-Max.
937-5905	905	5	.20	.035-.045
937-5909	909	6	.24	.035-.045
937-5918	918	12	.36	.035-.045
937-5930	930	18	.72	.035-.045
937-5933	933	24	.42	.015-.020
937-5938	938	28	1.12	.035-.045
937-5941	941	48	1.92	.035-.045

PRICES FOR ALL ABOVE

EACH 1-9	EACH 10-24	EACH 25-74	EACH 75-Up
1.25	1.13	1.00	.90

CARTRIDGE LIGHT HOUSINGS



Cartridge housing accept either standard pilot lamps or indicator lamps left. Made of black anodized aluminum per MIL-A-8625; base insulation of molded phenolic. **Withstand environmental requirements of MIL-STD-202B as prescribed in MIL-L-3661A.** Rated at 250 volts; maximum current, 1 amp. Breakdown voltage, 1000 V rms at 60 Hz. Easily installed from rear of panel with lockwasher and hex nut. *Solder lugs; other turret lugs. Shpg. wt. 10 oz.

A FOR PILOT LAMPS

Stock No.	Mfr's Type	Size, Dia. x L (Inches)
937-3620	SM-2/300950	½x1⅜
937-3625	SM-2A/300960	½x1⅜

B FOR INDICATOR LAMPS

Stock No.	Mfr's Type	Size, Dia. x L. Inches
937-3600	SM-1/300970	½x1 11/64
937-3605	*SM-1A/300980	½x1 11/64

PRICES FOR ALL ABOVE

EACH 1-9	EACH 10-24	EACH 25-99	EACH 100-Up
1.74	1.04	.95	.86

CARTRIDGE LENSES FOR ABOVE HOUSINGS

Polycarbon lenses have high working temperature, no melting, distortion. Black anodized aluminum bezels. Special inner surface provides almost total peripheral vision. Dia., .505".

TRANSPARENT LENS

Stock No.	Type	Color
937-6140	301400	Amber
937-6142	301420	Red
937-6143	301430	Blue
937-6144	301440	Green
937-6141	301410	Clear

TRANSLUCENT LENS

Stock No.	Type	Color
937-6145	301450	Yellow
937-6146	301460	White
937-6147	301470	Red
937-6148	301480	Blue
937-6149	301490	Green

PRICES FOR ALL AT LEFT

EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
.55	.50	.45	.40

Lamps, Lenses and Sockets

EXTENDED-SERVICE PILOT LAMPS

T2 type bulbs. 1.075" long x ¼" dia. Slide or miniature bayonet bases. 5000-hr. minimum life. Flat-top bulb. Flare-stem design. See right for housings. 2 oz. **Sold in boxes of 10.**

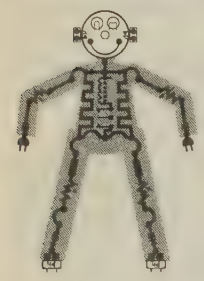
Slide Base Stock No.	Slide Base Type	Bayonet Base Stock No.	Bayonet Base Type	Volts	Av. Watts	Av. Amps	End Foot-Candles
937R3735	6PSB	.....	.....	6	.8	.140	800
937-3820	12PSB	.....	.....	12	2.0	.170	2400
937R3970	24PSB	.....	.....	24	1.7	.073	2200
937R3995	28PSB	.....	.....	28	1.1	.040	1900
937-4060	48PSB	.....	.....	48	2.5	.053	1500
937-5000	60PSB	.....	.....	60	3.0	.050	2400
937R5080	120PSB	937R5070	120MB	120	3.0	025	1600

1-3 Boxes.....**Each 9.00** **4-9 Boxes**.....**Each 7.50**
10-99 Boxes.....**Each 5.80** **100-Up Boxes**.....**Each 4.50**

END COLOR CAPS

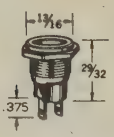
Profax and pyrex hard glass types. Profax for use below 1½ watts. For housings, this page. Shpg. wt., 1 lb.

Stock No.	Mfr's Type	Desc.	Color	BOX OF 10 1-9	10-49	50-99	100-Up
937R7801	38001-0	Profax	Red	1.60	.99	.91	.83
937-7802	38002-0	Profax	Yel	1.60	.99	.91	.83
937-7803	38003-0	Profax	Wht	1.60	.99	.91	.83
937-7804	38004-0	Profax	Grn	1.60	.99	.91	.83
937-7805	38005-0	Profax	Blue	1.60	.99	.91	.83
937-7871	38071-0	Pyrex	Red	1.60	.99	.91	.83
937-7872	38072-0	Pyrex	Yel	1.60	.99	.91	.83
937-7873	38073-0	Pyrex	Wht	1.60	.99	.91	.83
937-7874	38074-0	Pyrex	Grn	1.60	.99	.91	.83



Alec Electron Says – There's No Buy Like an Allied Buy!

PHENOLIC UNIVERSAL HOUSING



All metal parts nickel-plated. Rated 75 watts, 125 volts. U.L. Component-Program Recognized. Use AMP connector 42197-2, or leads can be soldered through holes in contacts. Lgth., 1 27/32". Max. panel thickness, 13/32". **Sold in Pkg. of 10.** 1 lb.
937-6099. 1-5....**Each 12.50** **6-9**...**Each 11.30**
10-49.....**Each 10.00** **50-Up**.....**Each 9.00**

ASSEMBLED HOUSING AND LAMPS (Less lens)

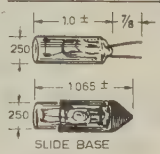
Stock No.	Mfr's Type	Volts	Av. Watts	Av. Amps	End Foot-Candles
937-3825	12PSB/30099-0	12	2.0	.170	2400
937-3975	24PSB/30099-0	24	1.7	.073	2200
937-4000	28PSB/30099-0	28	1.1	.040	1900
937-R5090	120PSB/30099-0	120	3.0	.025	1600

1-25.....**Each .90** **26-99**.....**Each .55**
100-499.....**Each .51** **500-Up**.....**Each .45**

LENSES FOR PILOT LIGHT ASSEMBLIES

For housings on this page. **Sold in Pkg. of 10.**
1-5 Pkg......**Each 5.37** **6-9 Pkg.**.....**Each 4.79**
10-24 Pkg......**Each 4.30** **25-Up Pkg.**.....**Each 3.87**

Color	JEWELED LENS Stock No.	Type	CLEAR LENS Stock No.	Type	OPAQUE LENS Stock No.	Type
Red	937R6100	30100-0	937-6110	30110-0	937-6130	30130-0
Blue	937-6103	30103-0	937-6113	30113-0	.....	.....
Green	937-6102	30102-0	937-6112	30112-0	937-6132	30132-0
Amber	937-6106	30106-0	937-6111	30111-0	.....	.....
Clear	.....	.....	937-6116	30116-0	.....	.....
White	.....	.....	.....	.....	937-6133	30133-0

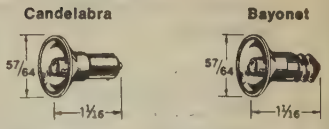


INDICATOR LAMPS

Long life, minimum 5000 hours. Electrical contact made with AMP connector 42197-2. T2 bulb. In Mfr's Type, final letter "B" indicates slide base.

Volts	Current (mA)	End Foot-Candles	Stock No.	Mfr's Type	BOX OF 10 1-4	5-9	10-24	25-Up
5.0	35-45	225	937-3715	5ESB	7.33	6.59	5.86	5.25
6.0	35-45	250	937-3725	6ESB	7.33	6.59	5.86	5.25
10.0	35-45	450	937-3775	10ESB	7.33	6.59	5.45	4.93
12.0	35-45	650	937-3810	12ESB	7.33	6.59	5.86	5.25
16.0	35-45	900	937-3910	16ESB	7.33	6.59	5.86	5.25
24.0	35-45	1100	937-3960	24ESB	7.33	6.59	5.86	5.25
24.0	15-20	200	937-3945	24CSB	7.33	6.59	5.86	5.25
28.0	35-45	1285	937R3985	28ESB	7.33	6.59	5.86	5.25
48.0	35-45	2000	937-4040	48ESB	9.78	8.80	7.83	7.05

ANNUNCIATOR LAMPS



High-brightness, long life lamps. Feature environmental reliability and 5000-hour life rating. Self-contained reflector speeds assembly. Miniature bayonet base or candelabra base. Shpg. wt. 2 oz.

MINIATURE BAYONET

Stock No.	Mfr's Type	V	W	A
937-3830	12RB 35221-0	12	2.0	.170
937-5020	60RB 35227-0	60	3.0	.050
937-5200	120RB 35229-0	120	3.0	.025

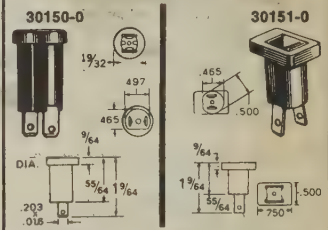
CANDELABRA

937-5210	120RC 35128-0	120	3.0	.025

1-9.....**Each 1.25** **10-24**.....**Each 1.10**
25-49 Ea. .98 **50-99 Ea. .90** **100-Up Ea. .87**

INDICATOR SOCKETS

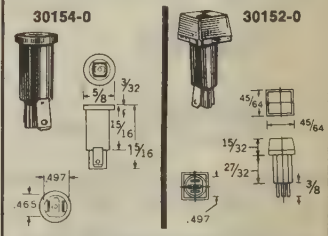
(Single-Socket Type)



937R6150. Type 30150-0. Round style. Body: 55/64x½" dia. Flange: ⅝" dia. **Sold in Pkg. of 10.** 1 lb.
1-4.....**Ea. 3.42** **5-9**.....**Ea. 3.08**
10-Up.....**Ea. 2.75**

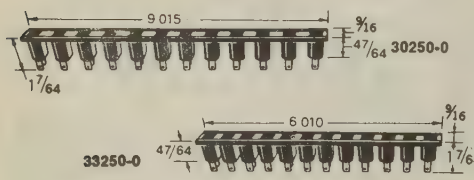
937-6151. Type 30151-0. Rectangular style. Same body size as above. Flange: ½x¾". **Sold in Pkg. of 10.** 1 lb.
1-4.....**Ea. 3.42** **5-9**.....**Ea. 3.08**
10-Up.....**Ea. 2.75**

PANEL LIGHT SOCKETS



Type 30152-0. Takes Series PSB slide base lamp. Black phenolic. U.L. Component Program Recog. Lenses left. 30154-0 same, but for use without lens. 2 oz.
937R6152. 1-25 Ea. .50 26-49 . . Ea. .45
50-99 ..... **Ea. .40 100-Up. Ea. .38**
Type 30154-0. Single Socket.
937-6154. 1-25 Ea. .50 26-49 . . Ea. .45
50-99 ..... **Ea. .40 100-Up. Ea. .38**

STRIP SOCKETS (12 Sockets per Strip)



Overall depth, 55/64" (less pins). Sockets are 47/64"x½" dia. 3 oz.
937-7250. 31250-0. ½" center, alternate contacts.
1-5.....**Each 5.12** **6-9**.....**Each 4.60**
10-24.....**Each 4.10** **25-Up**.....**Each 3.75**

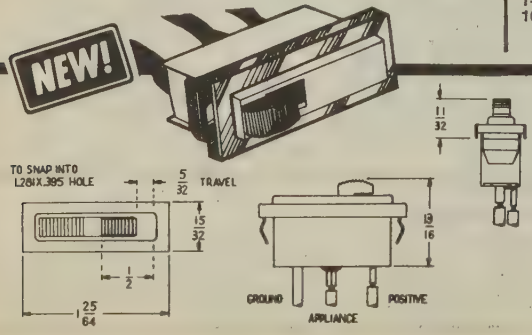
937-7350. 33250-0. ½" ctr., individual contacts.
1-5.....**Each 5.12** **6-9**.....**Each 4.60**
10-24.....**Each 4.10** **25-Up**.....**Each 3.75**

LENSES FOR SOCKETS, RIGHT

Polycarbonate lenses for Type 30152 panel lamp socket right. Available in round and square types. Shpg. wt. 2 oz. **Sold in Boxes of 10.**

Color	ROUND LENS Stock No.	Type	SQUARE LENS Stock No.	Type
Red	937-6160	30160-0	937-6170	30170-0
Amber	937-6162	30162-0	937-6172	30172-0
White			937-6173	30173-0
Green	937-6164	30164-0	937-6174	30174-0

1-5 Boxes.....**Each 2.98** **6-9 Boxes**.....**Each 2.68**
10-24 Boxes.....**Each 2.40** **25-Up Boxes**.....**Each 2.15**



RED "SLIDELITE" NEON PILOT INDICATOR/SLIDE SWITCH

SPST switch is rated at 6.0 amps AC or 1.0 amp DC at 125V. Neon lamp with ⅓W series resistor for 125 VAC. Ideal for a wide variety of commercial and industrial applications. Serves as an excellent replacement unit for many appliances. Black, white, and red wire leads 6" long. White nylon housing, 1 25/64" long x 15/32" wide x 21/32" deep. Chrome bezel designed for snap-in panel mounting. Slide knob projects 140"; has less than 3/16" travel. UL listed, CSA approved.

- **Specially Priced—Economical**
- **Ultra-Compact 2 Units in 1**
- **Easy Snap-In Installation**
- **UL Listed, CSA Approved**

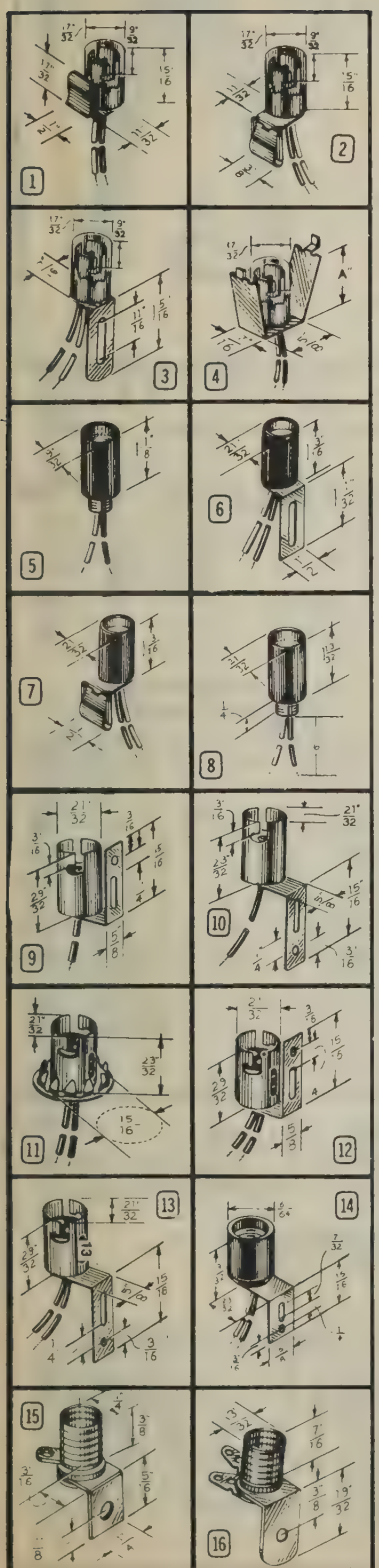
PRICE FOR SWITCH

Stock No.	Mfr. Type	Each 1-5	6-9	10-24	25-up
844-R7501	51-2131	2.25	1.87	1.50	1.04

Light Sockets for Every Application

• Ultra-Compact • Cost-Saving • Space-Saving • Stocked In-Depth
• Use in Home, Office, Industry . . . Anywhere!

The special you want is probably an Allied standard. Our light sockets are ultra-compact, precision-made, and will accommodate an almost endless variety of home, office and industrial applications. Save money, save space without sacrificing quality with light sockets from Allied Electronics. We've got them . . . all you want whenever you need them in four convenient stocking locations coast-to-coast!



SERIES 200 MINIATURE BAYONET

Sockets with insulated sleeves. .025 to .032" steel brackets; zinc-plated. Built-in 6" long #22 (7x30) leads. U.L. rated at 80 C., PVC insulated. Use T-3¼, G-3½ or G-4½ bulb. Shpg. wt., 1 oz.

Stock No.	Mfr's Type	Fig.	EACH 1-24	25-99	100-Up
844-1400	2-01	1	.91	.54	.43
844-1401	2-04	2	.91	.54	.43
844R1402	2-06	3	.91	.54	.43
844-1404	2-15	4	.91	.54	.43

SERIES 300 MINIATURE BAYONET

UL/CSA listed. For miniature bayonet lamps: T-3¼, G-3½, G-4½, NE-51. Insulated mounting bracket with phenolic housing; bakelite wire leads. Av. shpg. wt. 1 oz.

844R2105	3-30N	5	1.22	.93	.74

SERIES 400 CANDELABRA SCREW

UL/CSA listed. For candelabra screw lamps: NE-45, S6, or 10C7 — both incandescent and neon-glow. Insulated mounting bracket with phenolic housing; molded bakelite #18 wire leads 6" long with ends stripped ½". Type 4-30N with nut. Av. shpg. wt. 1 oz.

844-2302	4-06	6	.96	.65	.52
844-2303	4-08	7	.96	.65	.52
844-2305	4-30N	8	1.22	.93	.74

SERIES 11-200 CANDELABRA BAYONET

Single-contact socket. Has one 6" #18 (16x30) lead, with ½" wall of PVC insulation. U.L. and C.S.A. rated at 80°C. Has .035 to .042" thick steel brackets, cadmium-plated to fight corrosion. For T-4½ bulb. Shpg. wt., 1 oz.

844-3300	11-271	9	.87	.62	.49
844-3301	11-272	10	.87	.62	.49

SERIES 12-200 CANDELABRA BAYONET

Double-contact with wire leads. Contacts in insulating bakelite disc, separated by small coils. Disc, spring-loaded. #18-gauge (16x30) leads rated at 80°C. Rated 75 watts, 125 volts. Type 12-240 snaps into 15/16" hole. For incandescent and neon glow lamps as G6, S6, 10C7 and NE-48. U.L., C.S.A. 1 oz.

844-3640	12-240	11	1.09	.74	.67
844-3671	12-271	12	1.09	.74	.67
844-3672	12-272	13	1.09	.74	.67

SERIES 1400 INTERMEDIATE SCREW

Wire leads. For incandescent and ozone as S-6, S-11. U.L., C.S.A. Listed. 1 oz.

844-3701	14-72	14	1.05	.78	.64

SERIES 1600 MIDGET SCREW

Solder terminals, tinned for easy connections. For P-2½, T-1¾ lamps. 1 oz.

844-3900	16-08	15	.94	.64	.51

SERIES 500 MINIATURE SCREW

Solder terminals tinned. For low-voltage incandescent lamp applications. Zinc-plated steel brackets resist corrosion. For T-3¼, TL-3, or G-3½ lamps. *Long vertical bracket. Av. wt., 1 oz.

Stock No.	Mfr's Type	Fig.	EACH 1-24	25-99	100-Up
844-2406	5-06	*	.85	.56	.40
844-2408	5-08	16	.85	.56	.40
844-2413	5-13	17	.85	.56	.40

SERIES 600 CANDELABRA SCREW

With tinned solder terminals. Have .025 to .032" steel brackets; zinc-plated to fight corrosion. For G6 or S6 lamps. Shpg. wt. 1 oz.

844-2503	6-06	18	.85	.56	.40

SERIES 700 MINIATURE BAYONET

Insulated brackets. Terminals tinned for easy soldering. For low-voltage incandescent lamps as T-3¼, G-3½, and G-4½. Shpg. wt., 1 oz.

Stock No.	Mfr's Type	Fig.	EACH 1-24	25-99	100-Up
844-3103	7-05	19	.81	.48	.35
844-3104	7-06	20	.81	.48	.35
844-3106	7-08	21	.81	.48	.35
844-3107	7-11	22	.81	.48	.35
844-3108	7-13	23	.81	.48	.35
844-3110	7-20	24	.81	.48	.35
844-3111	7-35	25	.97	.70	.52

SERIES 1800 CANDELABRA SCREW

For incandescent and neon-glow, as S6 and NE-45. 75 watts, 125 volts. Insulating sleeve to meet U.L., C.S.A. requirements. Wt., 1 oz.

Stock No.	Mfr's Type	Fig.	EACH 1-24	25-99	100-Up
844-4100	18-76	26	.98	.63	.48

SERIES 25-00 MIDGET GROOVED

For midget-grooved base incandescent lamps, TL-1¾ and T-1¾ lens-end amps. 2 terminals. Built-in ejection. 1 oz.

844-4412	25-12	27	1.10	.81	.70
844-4406	25-06	28	1.10	.81	.70

SERIES 25-200 MIDGET GROOVED

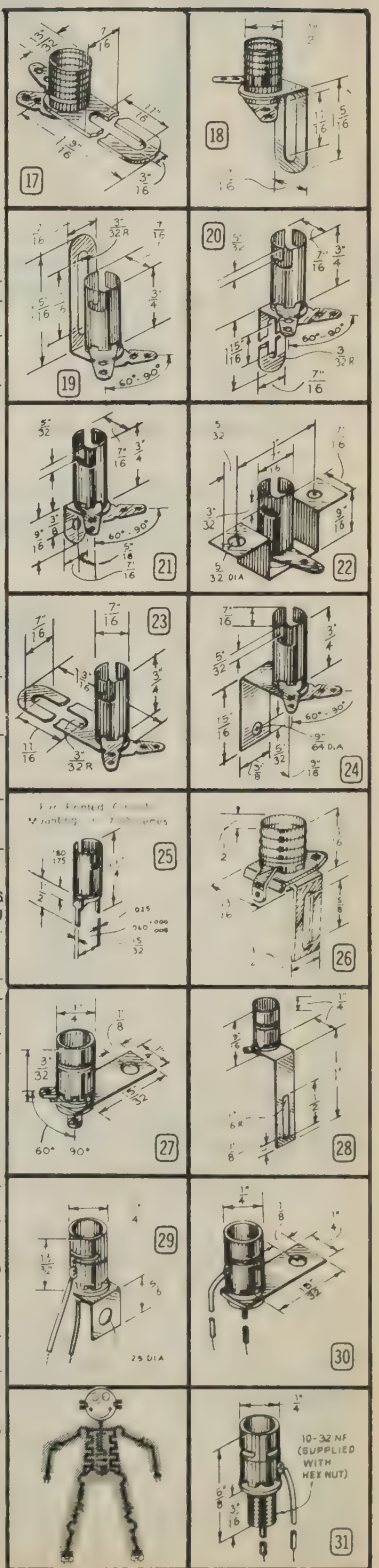
Same as Series 25-00 above, but has two insulated wire leads. For TL-1¾ and T-1¾ lamps. Shpg. wt., 1 oz.

844-4500	25-208	29	1.16	.88	.77
844-4501	25-212	30	1.16	.88	.77

SERIES 25-200-1 MIDGET-GROOVED

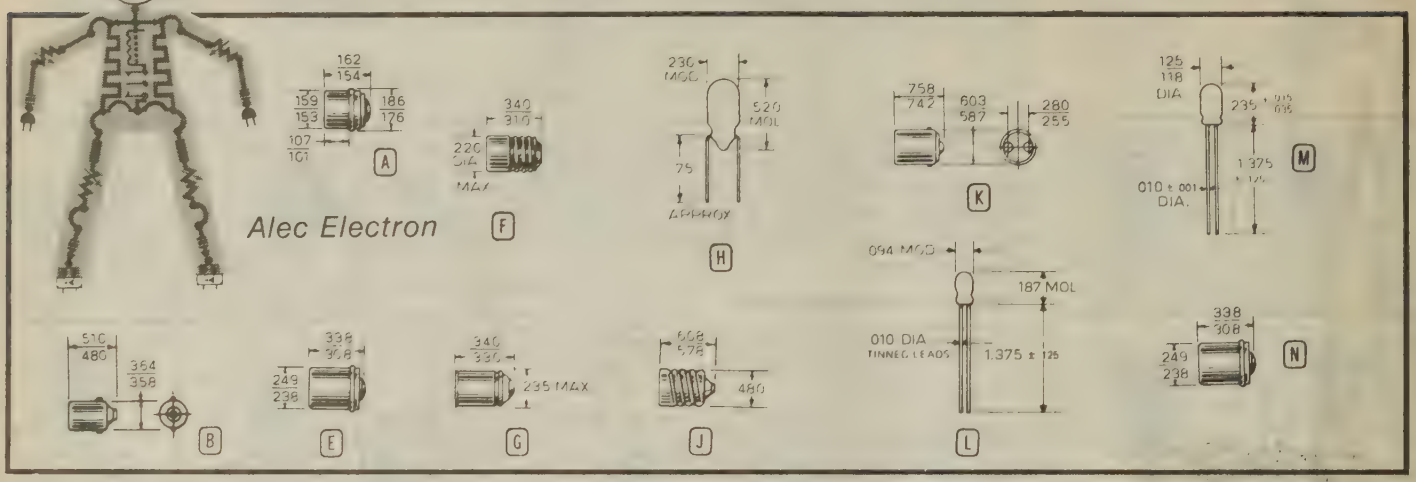
Subminiature socket. Same as Series 25-00 but grounded with single wire lead. Type 25-230N-1 with nut. For TL-1¾ and T-1¾ lamps. 1 oz.

844-4700	25-230N-1	31	1.42	1.15	.95



Allied Miniature and Sub-Miniature Lamps

For Use Where Precise Light Output is of Primary Importance



SUBMINIATURE AND MIL SPEC LAMPS

- **Wide Assortment of Popular Styles**
- **All Types ¼" Diameter and Smaller—Operate on 30 Volts or Less**

The lamps listed below are the most popular types available. Quality incandescent lamps ¼" in diameter or less; voltage limited to 30 volts or less. Many styles to choose from for such diverse applications as aircraft, appliances, automotive, radio or TV applications. Allied carries lamps for all needs— contact your nearest Allied facility.

All lamps listed are sold in packages of ten only.

*Indicates Base Configuration.

Stock No.	Mfr's Type	*	Volts	Amps	Base	Pkg. of 10	
						1-9	10-Up
749-9225	334	G	28.0	.04	Midget Grooved	9.78	6.27
749-9230	334 LSV	G	28.0	.06	Midget Grooved	14.51	12.58
749R9235	335	F	28.0	.04	Per Mil. 15612-2	12.06	10.46
749-9240	336	G	14.0	.08	Midget Grooved	11.48	9.95
749-9280	367	E	10.0	.04	Midget Flanged	14.57	12.63
749-9300	379	G	6.3	.20	Midget Grooved	12.65	8.12
749-9320	385	E	28.0	.04	Midget Flanged	15.70	13.61
749-9331	398	G	6.3	.20	Midget Grooved	11.55	7.42
749-9332	399	F	28.0	.04	Midget Screw	12.80	8.22
749-9545	1705	H	14.0	.08	Wire Terminal	7.10	4.56
749-9550	1730	H	6.0	.04	Wire Terminal	11.80	7.57
749-9560	1764	H	28.0	.04	Wire Terminal	5.80	3.73
749-9725	2187	H	28.0	.04	Wire Terminal	10.05	6.46
749-9745	6838	..	28.0	.024	Wire Terminal	19.40	16.81
749-9746	6839	A	28.0	.024	Sub-Midget Flanged	24.29	21.05
749R3068	GM8-967	B	120	.025	Min. Bayonet	11.65	10.49

STANDARD VOLTAGE LAMPS

*Base configuration.

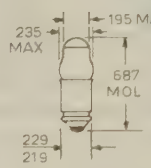
Stock No.	Mfr's Type	*	Volts	Watts	Bulb Style	PKG. OF 10	
						1-9	10-Up
749-8703	3S6/5	J	120	3	S-6	9.90	7.34
749R8720	6S6(115)	J	115	6	S-6	4.18	3.03
749R8721	6S6(145)	J	145	6	S-6	9.90	7.18
749R8722	6S6/DC	K	120	6	S-6	7.05	5.10
749-8725	6T4½-1	J	115-125	6	T-4½	12.55	9.09
749-8730	7C7	J	115-125	7	C-7	4.63	3.35
749-8735	10C7	J	115-125	10	C-7	5.28	3.83
749-8738	10C7DC	K	115-125	10	C-7	7.05	5.10
749R8740	10S6C	J	230	10	S-6	11.00	7.98
749R8745	10S6C	J	250	10	S-6	11.00	7.98

LONG LIFE LAMPS

M.F., midget flanged. W.T., wire terminal. *Base configuration. **Sold in Pkgs. of 10.**

Stock No.	Mfr's Type	*	V.	A.	Base	Bulb	PKG. OF 10	
							1-9	10-Up
749-9205	327LSV	N	28.0	.06	M.F.	T-1¾	14.25	12.96
749-9425	713	M	5.0	.075	W.T.	T-1	15.24	13.21
749-9750	7153	L	5.0	.115	W.T.	T-¾	21.19	18.37

HIGH-OUTPUT LENS-END LAMPS



GTL SERIES. Miniature lamps have focused beam, ideal for activating photoconductors in card or tape operations. 0.35 amp at 2.5 V, AC-DC. Midget grooved base. Overall diameter is .250". 1 1/16" long. Av. shpg. wt. 3 oz.

Stock No.	Mfr's Type	Style	PER BULB	
			1-9	10-Up
749R9155	253	GTL-1¾	3.15	2.37
749-9160	253X	GTL-1¾	3.85	2.86

NEON CIRCUIT CONTROL LAMPS

T-2 style bulbs; have wire leads. Radioactive additive reduces breakdown voltage in darkness. Tinned 1" leads for easy soldering. Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	DC Start Voltage	Design Current DC mA	PKG. OF 10
749-8705	5AB (NE-23)	60-90	.3	2.55
749-8710	5AH (NE-83)	60-100	10.0	4.62
749-8713	5AJ (NE-86)	55-90	1.5	4.68

MINIATURE NEON-GLOW INDICATOR LAMPS

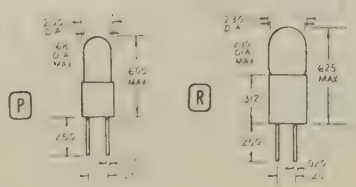
For 105-600 V, except ‡210-600 V. Screw types have series resistor for 105-125 V. In **Base** column: S.C., single; Mid., midget; Bay., bayonet; Cand., candelabra. *AC start V, DC V 40% higher. †High brightness. 2 oz.

Stock No.	Mfr's Type	Watts	*AC V	Bulb Style	Base	PKG. 10
749R2100	A1A (NE-2)	1/17	65	T-2	Wire Term	2.10
749R2160	C7A (NE-2D)	1/15	65	T-2	S.C. Mid. Flge.	11.40
749-2115	A9A (NE-2E)	1/10	65	T-2	Wire Term.	1.75
749R2155	†C2A (NE-2H)	1/5	...	T-2	Wire Term.	1.70
749-2165	†C9A (NE-2J)	1/5	105	T-2	S.C. Mid. Flge.	11.88
749-2145	B7A (NE-45)	1/4	65	R-5½	Cand. Screw	10.10
749R2120	B1A (NE-51)	1/25	65	T-3¼	S.C. Bay. Min.	4.25
749R2125	†B2A (NE-51H)	1/7	...	T-3¼	S.C. Bay. Min.	4.25
749-8316	‡F4A (NE-58)	1/2	65	T-4½	Cand. Screw	20.15
749-8330	K1A (NE-84)	1/4	95	T-2	Spec. Tel. Slide	11.97

SUBMINIATURE INCANDESCENT B1-PIN LAMPS

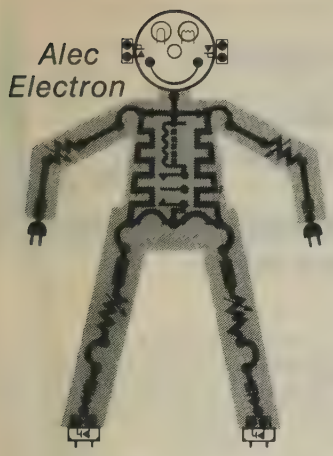
- **Long Life . . . Low Replacement Rate**
- **Coiled-Coil, Tungsten Filament**
- **Shock, Vibration Resistant**
- **Two Cap Styles Offering 180° Visibility**
- **Ideal for Many Critical Indicator Applications**

B1-Pin lamps are widely used for indicator lighting and many other design applications. Tough, dependable . . . use where lamp replacement is difficult. Terminals: .20" dia. T-1¼ bulb, .200" dia. x .600" max; T-1¾ bulb, .230" dia. x .625" max. Sold in packages of 10.

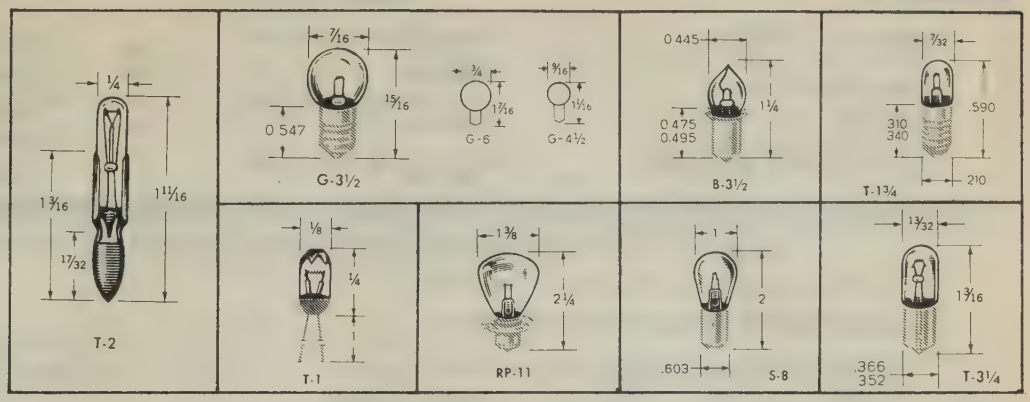


Stock No.	Type CM7-	Fig.	V	Amps	M.S. C.P.	Bulb Size	PKG. OF 10		
							1-4	5-9	10-Up
749-2829	7646	P	14.0	.08		T-1¼	21.71	19.74	15.96
749-2826	7632	P	28.0	.04		T-1¼	21.71	19.74	15.96
749-2814	7377	R	6.3	.075		T-1¾	8.13	6.31	5.10
749-2816	7381	R	6.3	.20	.40	T-1¾	9.13	7.09	5.74
749-2794	7349	R	6.3	.20	.55	T-1¾	8.05	6.25	7.57
749-2817	7832	R	14.0	.08	.30	T-1¾	8.15	6.32	8.50
749R2818	7387	R	28.0	.04	.30	T-1¾	9.68	7.52	8.35
749-2790	7327	R	28.0	.04	.34	T-1¾	6.94	6.31	7.25

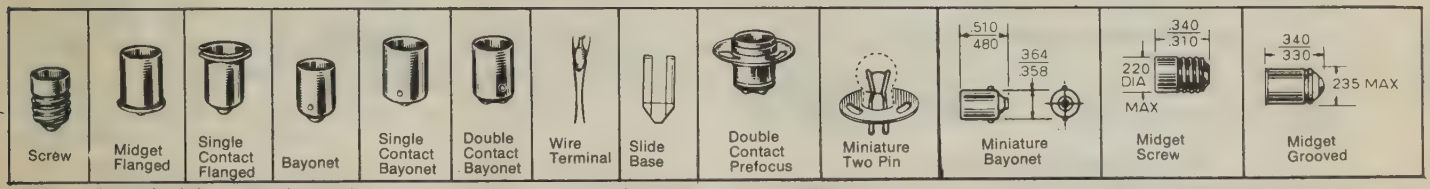
Miniature and Subminiature Incandescent Lamps



BULB STYLE



BASE STYLE



Wide variety of miniature and subminiature incandescent lamps for such applications as aircraft, annunciators, appliances, automotive, bicycles, coin machines, flashlights, marine, medical equipment, indicators, signs and house numbers, radio and TV, telephone, toys and novelties. These lamps offer extra-long life, reliability, low cost, high light output for the amount of current consumed. Low operating cost. Refer to Figure above for abbreviations. *To order, specify lamp type listed and quantities desired.*

ORDER LAMPS LISTED BELOW IN BOXES OF 10 ONLY

Stock No.	Type	Volts	Amps	Base Style	Bulb Style	Per Box of 10 1-9 Boxes	Per Box of 10 10-Up Boxes
602-8402	PR-2	2.38	.50	S.C.F.	B-3½	2.15	1.80
602R9012	12	6.3	.15	Min. 2-pin	G-3½	3.33	2.02
602-9024	24E	24	.035	Slide Base	T-2	9.04	7.91
602R9025	24X	24	.035	Slide Base	T-2	8.60	7.53
602-9040	40	6.3	.15	Screw	T-3¼	1.90	1.06
602-9044	44	6.3	.25	Bayonet	T-3¼	1.60	1.26
602-9046	46	6.3	.25	Screw	T-3¼	1.80	1.13
602-9047	47	6.3	.15	Bayonet	T-3¼	1.60	1.15
602-9050	49	2.0	.06	Bayonet	T-3¼	2.48	1.73
602-9052	51	7.5	.22	Bayonet	G-3½	1.72	1.37
602-9054	53	14.4	.12	Bayonet	G-3½	1.77	1.42
602-9055	55	7.0	.41	Bayonet	G-4½	2.60	2.07
602-9082	82	6.5	1.05	D.C. Bayonet	G-6	2.70	2.14
602-9093	93	12.8	1.04	S.C. Bayonet	S-8	3.45	2.80
602-9140	222	2.25	.25	Screw	TL-3	2.50	2.11
602R9180	313	28	.17	Bayonet	T-3¼	3.43	2.41
602R9195	327	28	.04	Mid. Flanged	T-1¾	6.20	4.90
602R9210	328	6	.20	Mid. Flanged	T-1¾	4.05	2.85
602R9215	330	14	.08	Mid. Flanged	T-1¾	8.30	6.61
602-9260	344	10	.014	Mid. Flanged	T-1¾	14.12	11.80
602-9265	345	6	.04	Mid. Flanged	T-1¾	14.30	11.66
602-9310	381	6.3	.20	Mid. Flanged	T-1¾	11.57	9.29

Stock No.	Type	Volts	Amps	Base Style	Bulb Style	Per Box of 10 1-9 Boxes	Per Box of 10 10-Up Boxes
602R9315	382	14	.08	Mid. Flanged	T-1¾	12.75	9.82
602-9321	386	14	.08	Mid. Grooved	T-1¾	15.82	12.69
602-9322	387	28	.04	Mid. Flanged	T-1¾	6.25	4.99
602-9323	388	28	.04	Mid. Grooved	T-1¾	15.72	12.63
602-9407	683	5	.060	Wire Term.	T-1	19.85	15.90
602-9440	755	6.3	.15	Min. Bay.	T-3¼	3.68	2.65
602-9442	756	14	.08	Min. Bay.	T-3¼	4.93	3.54
602-9444	757	28	.08	Min. Bayonet	T-3¼	5.27	3.89
602-9475	1129	6.4	2.63	S.C. Bayonet	S-8	4.42	3.10
602-9485	1133	6.2	3.91	S.C. Bayonet	RP-11	7.70	5.47
602-9527	1493	6.5	2.80	D.C. Bayonet	S-8	16.47	13.11
602-9535	1630	6.5	2.75	D.C. Perf.	S-8	19.50	15.51
602-9563	1768	6	.20	Midget Screw	T-1¾	10.25	7.47
602-9595	1815	14.0	.20	Min. Bayonet	T-3¼	2.68	2.05
602R9605	1819	28	.04	Min. Bayonet	T-3¼	4.18	3.33
602R9610	1820	28	.10	Min. Bayonet	T-3¼	4.18	3.33
602-9615	1822	36	.10	Min. Bayonet	T-3¼	8.57	6.82
602R9620	1828	37.5	.05	Min. Bayonet	T-3¼	8.18	5.58
602R9625	1829	28	.07	Min. Bayonet	T-3¼	4.18	3.33
602-9630	1835	55	.05	Min. Bayonet	T-3¼	9.15	6.40
602-9635	1847	6.3	.15	Min. Bayonet	T-3¼	1.98	1.51
602-9721	2182	14	.08	Wire Term.	T-1¾	6.72	5.51

SPECIAL PRICES ON BULK LOTS OF 500 IN MULTIPLES OF 500 PIECES ONLY

Stock No.	Type	Volts	Amps	Base Style	Bulb Style	Per Box of 500 1 Box	Per Box of 500 2 Boxes-Up
602-0180	313	28	.17	Bayonet	T-3¼	106.88	97.92
602-0195	327	28	.04	Mid. Flanged	T-1¾	154.47	141.52
602-0210	328	6	.20	Mid. Flanged	T-1¾	131.93	120.87
602-0215	330	14	.08	Mid. Flanged	T-1¾	166.16	152.23
749-0225	334	28	.04	Mid. Grooved	.....	171.18	156.82
602-0260	344	10	.014	Mid. Flanged	T-1¾	213.76	195.84
602-0265	345	6	.04	Mid. Flanged	T-1¾	167.00	153.00
602-0310	381	6.3	.20	Mid. Flanged	T-1¾	167.00	153.00
602-0315	382	14	.08	Mid. Flanged	T-1¾	171.18	156.83

Stock No.	Type	Volts	Amps	Base Style	Bulb Style	Per Box of 500 1 Box	Per Box of 500 2 Boxes-Up
749-0320	385	28	.04	Mid. Flanged	.....	171.18	156.83
602-0321	386	14	.08	Mid. Grooved	T-1¾	189.55	173.65
602-0322	387	28	.04	Mid. Flanged	T-1¾	172.85	158.35
602-0323	388	28	.04	Mid. Grooved	T-1¾	189.55	173.65
749-0331	398	6.3	.20	Mid. Grooved	.....	168.67	154.53
602-0683	683	5	.060	Wire Term.	T-1	242.15	221.85
749-0713	713	5	.075	Wire Term.	T-1	242.15	221.85
749-1764	1764	28	.04	Wire Term.	.....	76.82	70.38
602-1768	1768	6	.20	Mid. Screw	T-1¾	242.99	222.62

Alec Electron Says: Buy in Bulk Quantity for Greater Savings

Carbon Film and Carbon Resistors

RESISTOR INDEX

ADJUSTABLE RESISTORS
Clarostat 53

CARBON RESISTORS
Stackpole 50
TRW/IRC 50

CARBON FILM MIN. RESISTORS
Allied 50

FIXED POWER RESISTORS
Clarostat 53
TRW/IRC 52

METAL FILM RESISTORS
TRW/IRC 51

METAL GLAZE RESISTORS
TRW/IRC 51

RESISTOR ASSORTMENTS
I.C.C. 50
TRW/IRC 52

RESISTOR BIN LABELS
Allied 2

WIREWOUND POWER RESISTORS
Clarostat 52, 53
TRW/IRC 52

ALLIED 5% CARBON FILM MINIATURE RESISTORS BELOW 10% CARBON PRICES

Extremely low noise. Epoxy coating with color code marking.

TEMPERATURE CHARACTERISTICS (PPM/°C)

Operating Temperature Range −25°C to +125°C

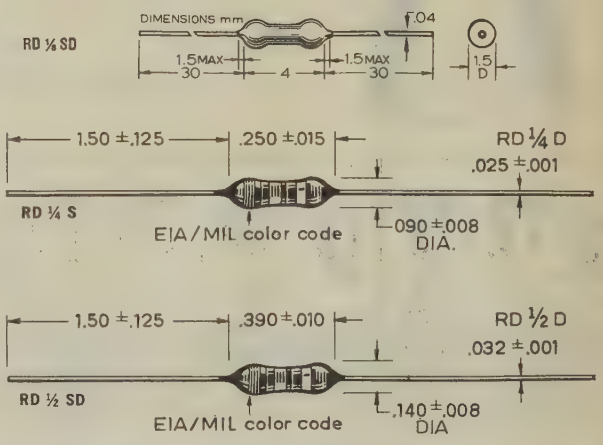
Type	0 to −500	0 to −700	0 to −1000	0 to −1500	Test Method
RD1/8SD	Under 47 kohm	51 kohm-100 kohm	Over 110 kohm	.....	EIA RS-196A
RD¼S	Under 100 kohm	110 kohm-910 kohm	1 Mohm-1.3 Mohm	Over 1.5 Mohm	5.2.4
RD½SD	Under 100 kohm	110 kohm-910 kohm	1 Mohm-2.0 Mohm	Over 2.2 Mohm	

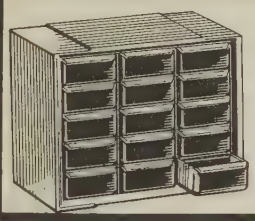
NOISE CHARACTERISTICS (μv/v)

Type	0.1	0.3	0.6
RD ⅛ SD	.....	Under 10 kohm	11 kohm-47 kohm
RD¼S	Under 10 kohm	11 kohm-100 kohm	110 kohm-1.3 Mohm
RD½SD	Under 10 kohm	11k ohm-270 kohm	300 kohm-4.7 Mohm

PRICES (Minimum Quantity 10)

Stock No.	Type	Watts	Values See Table Below	EACH 10-99	100-999	1000-2499	2500-Up
525-0XXX	RD ⅛ SD	⅛	10 ohm-680 kohm	.10	.07	.05	.04
525-1XXX	RD¼S	¼	10 ohm-680 kohm	.10	.07	.04	.03
525-2XXX	RD½SD	½	10 ohm-680 kohm	.10	.07	.04	.03





NEW!

DESIGN ENGINEER CARBON FILM RESISTOR KITS

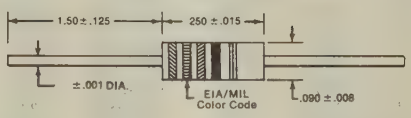
These kits include high-performance, high-reliability ¼W or ½W carbon film resistors for applications requiring superior performance. Low noise resistors feature welded cap and lead construction. Tolerance: ±5%. Values are color-banded per EIA specs. Conformal coating exceeds requirements of MIL-R-11F. 400 cabinet **Type CF25D** contains 400-¼W resistors. 300 cabinet **Type CF50D** contains 300-½W resistors.

623-0100. Type CF25D ..... **Each 29.95**
623-0200. Type CF50D ..... **Each 29.95**

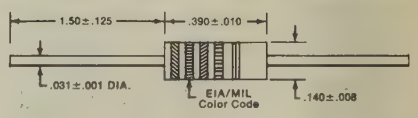
Each Type CF25D Cabinet Contains the Following Ohm Values Rated at ¼W, While Each Type CF50D Cabinet Contains the Same Ohm Values Rated at ½W:
2.2, 3, 5.1, 10, 12, 15, 22, 27, 33, 47, 68, 82, 100, 120, 150, 180, 220, 270, 330, 390, 470, 560, 680, 820, 1K, 1.2K, 1.5K, 1.8K, 2.2K, 2.7K, 3.3K, 3.9K, 4.7K, 5.6K, 6.8K, 8.2K, 10K, 12K, 15K, 18K, 22K, 27K, 33K, 39K, 47K, 56K, 68K, 82K, 100K, 120K, 150K, 180K, 220K, 270K, 330K, 470K, 1 Megohm, 2.2 Megohms—plus other current popular values.

RCR CARBON RESISTORS TO MIL-R-39008A SPECIFICATIONS

- **Documented Reliability Beyond that Offered with MIL-R-11—at No Extra Cost**
- **Factory Fresh—No Obsolescence**



RCR07



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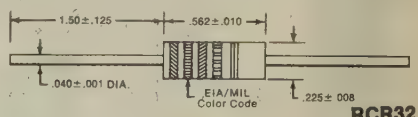
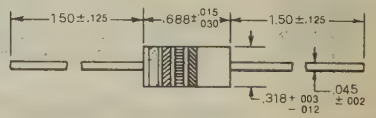


RCR32



RC42

5% TOLERANCE
ALL VALUES WITHIN SPECIFIED RANGE AVAILABLE

Stock No.	MIL Equiv.	Watts	Wire AWG	Values See Table Below	EACH 10-99	100-499	500-999	1000-Up
824-1XXX	RCR07	¼	#22	2.7 Ohms to 20 Megohms	.13	.08	.07	.06
824-3XXX	RCR20	½	#20	2.7 Ohms to 20 Megohms	.13	.08	.07	.06
824-5XXX	RCR32	1	#18	10 Ohms to 20 Megohms	.15	.11	.10	.09
720-7XXX	RC42	2	#17	10 Ohms to 1 Megohm	.27	.23	.20	.17

A MINIMUM OF 10 PIECES PER ITEM PER VALUE MUST BE ORDERED

STANDARD RESISTANCE VALUES

TO COMPLETE ALLIED STOCK NO., INSERT 3 DIGIT NO. SHOWN IN XXX COLUMN AFTER VALUE DESIRED, IN PLACE OF XXX IN STOCK NO.

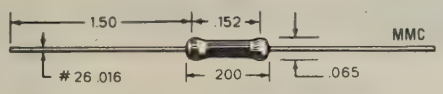
Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Megs	XXX	Megs	XXX
2.7	041	33	130	240	255	1200	366	6800	489	51k	657	470k	825	1.0	877	5.1	917
3.0	042	39	140	270	263	1500	380	7500	498	56k	666	510k	830	1.1	881	5.6	918
3.3	043	47	153	300	270	1600	383	8200	504	62k	677	560k	836	1.2	886	6.2	919
3.9	046	51	160	330	276	1800	393	10k	522	68k	685	680k	850	1.3	890	6.8	920
4.7	049	56	166	390	288	2000	400	11k	528	82k	703	910k	871	1.5	900	7.5	921
5.1	051	68	178	430	296	2200	405	12k	533	91k	712	....	...	1.8	903	8.2	922
5.6	053	75	185	470	302	2400	412	15k	550	100k	717	....	...	2.0	905	9.1	923
6.8	055	82	190	510	308	2700	421	18k	565	120k	727	....	...	2.2	907	10.0	924
8.2	057	100	202	560	315	3000	427	20k	575	150k	740	....	....	2.4	908	12.0	927
9.1	058	110	206	620	324	3300	433	22k	585	180k	751	....	....	2.7	909	15.0	929
10	060	120	212	680	330	3600	441	24k	592	200k	759	....	....	3.0	911	18.0	933
15	081	150	226	750	338	3900	446	27k	603	220k	765	....	....	3.3	912	20.0	935
20	098	160	230	820	343	4700	461	30k	611	270k	783	....	....	3.6	913	....	...
22	102	180	237	910	351	5100	467	33k	617	300k	790	....	....	3.9	914	....	...
27	117	200	243	1000	356	5600	473	39k	636	330k	796	....	....	4.3	915	....	...
30	123	220	248	1100	361	6200	482	47k	650	390k	811	....	....	4.7	916	....	...

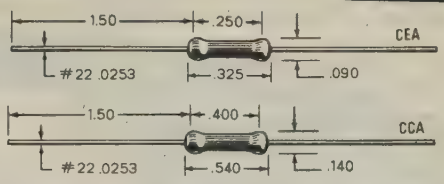
Alec Electron

NOTE: Minimum Order Quantity is 10 Pieces Per Item Per Value

MIL-Type Metal Film & Glaze Resistors

- For Precision Instrumentation
- Offer Low Electrical Noise
- High Stability Under Load
- Precise Tolerances and Temperature Coefficients
- Minimum Order, 10 Pieces





MIL-TYPE METAL FILM RESISTORS

APPLICATIONS

Particularly suited for applications requiring low electrical noise, stability under load, precise temperature coefficients and tolerances, uniform performance and repeatability.

Applications include: precision instrumentation; computer peripherals and mainframes; missile and aircraft systems; sensing and measuring devices. Matching of temperature coefficients, tolerances and ratios available between pairs of sets, between different values, styles.

VOLTAGE COEFFICIENT

Voltage coefficient when measured between 1/10 and full rated voltage is typically less than 0.5 parts per million per volt for all values. On low and medium values, voltage coefficient is essentially zero.

ELECTRIC NOISE

Metal Film resistors have low noise levels due to minute size of particles which comprise the film. Average 0.10 μV per volt (—20 dB) over standard resistance ranges for a decade of frequency, with low and intermediate values below 0.05 μV per volt (—30 dB).

FREQUENCY RESPONSE

Excellent high frequency response that is essentially flat to 5 MHz.

TEMPERATURE COEFFICIENTS

High-stability evaporated metal film resistors available in one temperature tolerance.

MIL-R-10509 Char.	IRC T.C. Code	Temperature Coefficient †	Temperature Range
C	T2	0 ± 50PPM/°C	—55° to +175°C

†Indicates parts per million per degree centrigrade (100 PPM equals 0.01%.) T.C. code marking is combined with the code for date of manufacture.

MINIMUM ORDER, 10 PIECES
ORDERING INFORMATION — See Table below for resistance values.

REPLACE XXX IN STOCK NO. WITH APPROPRIATE 3 DIGIT NUMBER FROM VALUES TABLE

Stock No.	Mfr's Type	MIL Style	MIL Char.	IRC T.C. Code	Resistance Range, Ohms	Watts at 70°C IRC	Watts at 70°C MIL	Watts at 125°C IRC	Watts at 125°C MIL	Volts MIL Max.	Body Style	Maximum Size, Inches L	D	CL	AWG	EACH 10-24	25-99	100-249	250-Up
832-6XXX	MMC	RN50	C	T2	49.9-100k	1/2	1/8	1/4	1/20	200	C	.172	.075	.200	#26	1.00	.80	.65	.50
831-6XXX	TO-55 CEA	RN55	C	T2	30.1-499k	1/2	1/8	1/4	1/10	200	C	.281	.100	.325	#22 (.025)	.50	.40	.25	.15
831-2XXX	TO-60 CCA	RN60	C	T2	30.1-499k	1/2	1/4	1/4	1/8	250	C	.431	.160	.540	#22 (.025)	.50	.40	.25	.15

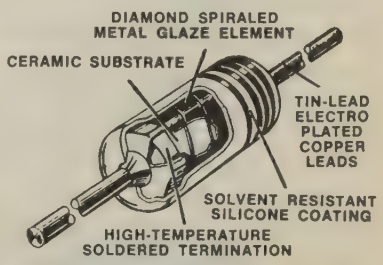
Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX
30.1	125	121	213	332	277	909	350	2490	415	4990	465	10k	522	18.2k	566	33.2k	618	69.8k	688	182k	752	499k	828
49.9	157	150	226	348	280	953	353	2740	422	5110	468	10.2k	523	20k	575	36.5k	631	82.5k	705	200k	759	...	...
51.1	161	200	243	402	292	1000	356	3010	428	6190	481	11k	528	22.1k	586	46.4k	649	84.5k	706	221k	766	..	.
56.2	167	221	250	475	303	1210	367	3320	435	6810	490	12.1k	535	22.6k	588	47.5k	651	90.9k	711	226k	767	..	...
68.1	180	243	256	499	306	1500	380	3480	437	7500	498	12.4k	536	23.7k	591	48.7k	653	93.1k	713	249k	777	...	...
75.0	185	249	257	604	322	1620	385	3570	440	8250	505	13k	538	24.9k	594	49.9k	655	97.6k	716	301k	791	...	...
86.6	193	274	265	750	338	2000	400	3830	445	8450	507	15k	550	25.5k	597	51.1k	658	100k	717	357k	803	...	...
90.9	196	301	271	806	342	2210	406	3920	447	9090	513	15.8k	552	27.4k	604	61.9k	675	121k	728	392k	812	...	..
100	202	316	273	825	345	2430	413	4020	450	9530	518	17.4k	561	30.1k	612	68.1k	686	150k	740	475k	826	...	...

STABILITY, RELIABILITY, LONGER LIFE MOLDED METAL-GLAZE 2% TOLERANCE RESISTORS

Metal Glaze film is up to 100 times thicker than conventional resistor films. Molded body is extremely rugged, resists solvents, mechanical abuse of automatic handling equipment. Offer excellent temperature coefficients across a wide resistance range. Load life stability is 4 times better than MIL allowance. Average resistance changes less than 0.6% after 1000 hours, full load at 70°C. Derated 0 to 150°. Av. wt. per 100, 6 oz. More data below. **MINIMUM ORDER 10 PCS.**

MOLDED METAL-GLAZE PRECISION RESISTORS

Composed of a unique diamond-spiraled, thick-film resistance element of glass and metal alloy for unusual ruggedness. Tin-lead, electroplated copper leads. Meet MIL-R-22684. Performance exceeds MIL-R-39008A resistors. **Resistance Values in Ohm Table below.**



- Extremely Durable Uniform Molded Body
- Impervious to Environmental Extremes

2%-TOLERANCE RESISTORS

Stock No.	Mfr's Type	Watts	Stock Values (See Code Below)	EACH 10-49	50-99	100-249	250-Up
963-5XXX	RL07	¼	51 ohms to 150k	.32	.26	.22	.18
963-7XXX	RL20	½	51 ohms to 150k	.38	.30	.25	.20

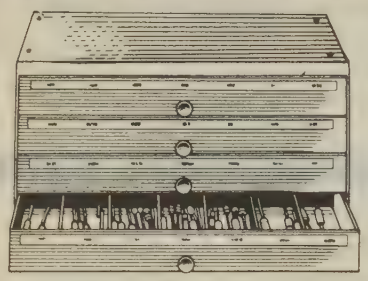
Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX
51	160	470	302	1800	393	4700	461	12k	533	56k	666
68	178	560	315	2000	400	5100	467	15k	550	100k	717
100	202	620	324	2400	412	5600	473	20k	575	150k	740
150	226	910	351	3000	427	6800	489	33k	617	...	..
200	243	1000	356	3300	433	8200	504	47k	650	...	..
220	248	1500	380	3900	446	10k	522	51k	657	...	...

Note: To complete Allied Stock number, insert numeric code (under XXX in table at left) shown opposite ohm value in place of XXX in stock number.

ATTENTION BUYERS
For fast service, contact your nearest Allied sales office. See page 3 for phone numbers and locations coast-to-coast.

Resistors and Resistor Kits

METAL "RESIST-O-CABINET"



- Free With Purchase Of Resistor Assortment
- Four Non-Spill Drawers
- Twenty-eight Compartments

METAL RESIST-O-CABINET

A sturdy metal Resist-O-Cabinet (illustrated at left) is free with purchase of any balanced resistor kit. Four non-spill drawers and 28 compartments. Overall: $5^{3}/_{8} \times 5^{15}/_{16} \times 10^{7}/_{8}$". Durable blue and silver finish.

RESISTOR KIT 3A

Balanced assortment of 120 10% tolerance molded wirewound and fixed composition resistors. Compact size comparable to ½ W and 1 W sizes, yet rated 2 W at 70°C ambient temp. Contains: 7 each: 8200, 10K, 22K, 47K; 5 each: 1000, 6800, 15K, 100K; 4 each: 100, 330, 470, 1500, 2200, 3300, 4700, 27K, 1.0 meg; 3 each: 47, 82, 150, 220, 270, 3900, 220K, 470K; 2 each: 4.7, 10, 22, 68; 1 each: 15, 27, 33, 39. With metal Resisto-O-Cabinet. Wt. 4½ lb.
961-0100.....**Each 33.68** **5-Up**.....**Each 28.80**

RESISTOR KIT 4A

Comprehensive selection of 150 10% tolerance fixed carbon composition resistors rated ½ W at 70°C ambient temp. Rated 350 V. 1½" solder leads. Contains: 8 each: 1000, 47K, 100K, 270K, 1.0 meg; 7 each 3700, 10K, 220K, 2.2 megs; 5 each: 3300, 22K, 27K, 33K, 330K, 4.7 meg; 4 each: 100, 470, 1500, 2200, 2700, 56K, 68K, 3.3 meg; 3 each: 47, 220, 270, 10 meg. Complete with Resist-O-Cabinet. Ship. wt. 4½ lb.
961-0101.....**Each 21.04** **5-Up**.....**Each 18.00**

RESISTOR KIT 6A

Contains 139 precision deposited carbon film and 10% tolerance insulated resistors rated ½ W, 1 W, and 2 W. **½ watt.** 44 ea.: 100, 47K, 100K, 270K, 470K, 1.0 meg; 3 ea.: 4700, 10K, 220K, 2.2 meg; 2 each: 47, 100, 150, 220, 270, 470, 1500, 2200, 2700, 3300, 15K, 22K, 27K, 33K, 39K, 68K, 150K, 4.7 meg. **1 watt.** 4 each: 1000, 10K, 27K, 100K, 1.0 meg; 3 each: 47K, 470K, 2.2 meg; 2 each: 3300, 15K, 22K, 68K, 150K, 270K; 1 each: 47, 100, 150, 220, 270, 470, 1500, 2200, 2700, 4700, 33K, 39K, 220K, 4.7 meg. **2 watt.** 1 each: 47, 100, 470, 4700, 10K, 22K, 47K, **Type DCF resistors.** Offer 1% tolerance, rated 1 watt at 40°C ambient temperature. 1 each: 1000, 10K, 100K, 1.0 meg and 5.0 meg. Complete with Resisto-O-Cabinet.
961-0103. 5 lbs.....**Each 27.14** **5-Up**.....**23.22**

RESISTOR KIT 7A

Contains balanced inventory of 150 10% tolerance fixed carbon composition resistors rated ¼-watt at 70°C ambient temperature. Voltage rating: 250 V. 1½" solder leads. Resistances as follows: 10 each: 1000, 4700, 10K; 8 each: 2200, 22K, 100K; 6 each: 100, 470, 1500, 6800, 15K, 33K, 47K; 5 each: 3300, 1.0 meg; 4 each: 150, 220, 2700, 3900, 18K; 3 each: 47, 270, 680, 27K, 39K, 68K, 220K, 470K. With metal Resist-O-Cabinet. Shpg. wt. 4¼ lbs.
961-0104.....**Each 22.80** **5-Up**.....**Each 19.50**

STANDARD RESISTANCE VALUES FOR COMPLETING ALLIED'S RESISTOR STOCK NUMBER

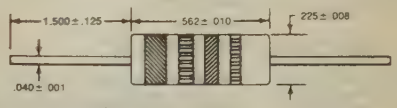
This table will help you to complete Stock Numbers for wirewound and power resistors shown at right. Once you determine the Ohm rating you want for a particular resistor, locate that value in the Ohm column below. Directly opposite that value in the XXX column is the number you need to complete the Stock Number. Insert this number into the Stock Number where XXX appears.

Ohms	XXX	Ohms	XXX	Ohms	XXX
.10	001	2.2	039	100	202
.12	003	2.7	041	120	212
.15	005	3.0	042	150	226
.18	007	3.3	043	200	243
.20	008	3.9	046	220	248
.22	009	4.0	047	250	258
.24	011	4.7	049	300	270
.27	012	5.0	050	330	276
.30	013	5.1	051	470	302
.33	014	5.6	053	500	307
.39	017	6.8	055	1k	356
.43	018	7.5	056	1.5k	380
.47	019	8.2	057	2k	400
.51	021	10	060	2.25k	407
.56	022	15	081	2.5k	416
.68	024	20	098	3k	427
.82	027	25	112	5k	466
1.0	029	30	123	10k	522
1.3	033	47	153	15k	550
1.5	034	50	158	20k	575
1.8	037	56	166	25k	596
2.0	038	75	185	...	...

BWH 5% 2-WATT FIXED WIREWOUND RESISTORS

Specify Values Wanted — To 1500 Ohms Only

Stock No.	Mfr. Type	Ohm Values (See Table at Left)	EACH 10-99	100-249	250-499	500-Up
823-1XXX	BWH	0.10 Ohms to 8.2 Ohms	.51	.31	.20	.16
823-1XXX	BWH	10 Ohms to 1500 Ohms	.32	.20	.14	.10



TYPE AS 1% TOLERANCE, 2-WATT AND 5-WATT POWER RESISTORS

Mini-wirewound resistors with solvent-resistant silicone coating. High strength, high heat (215°C) resistance. Welded connections. Temp. coefficient less than 20ppm/°C. Max. wkg. voltages: AS-2, 150V; AS-5A, 400V. Wt. 1 oz.

1% — TYPE AS-2 2-WATT (½ x ¼")

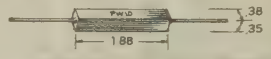
Stock No.	Ohm Values (See Table at Left)	EACH 1-49	50-499	500-999	1000-Up
962-4XXX	1, 5.1, 10, 100, 120, 300, 1k	1.08	.86	.65	.57
962-4522	10k	1.28	1.02	.78	.66
962-4550	15k	1.30	1.04	.80	.68
962-4575	20k	1.35	1.08	.83	.72

1% — TYPE AS-5A 5-WATT ($^{15}/_{16} \times {}^{11}/_{32}$")

Stock No.	Ohm Values (See Table at Left)	EACH 1-49	50-499	500-999	1000-Up
962-6XXX	1, 100, 150	1.13	.90	.69	.59
962-6657	5.1k	1.60	1.28	.98	.85

TYPES PW-5 5-WATT AND PW-10 10-WATT RESISTORS

Axial-lead resistors. Precisely wound element has glass fiber core and is sealed in rectangular ceramic case. Tolerance ±10%. Power ratings, 25°C ambient. 1½" leads. Type PW-5 dimensions: $^{7}/_{8} \times {}^{3}/_{8} \times {}^{11}/_{32}$". Type PW-10 dimensions: $1^{7}/_{8} \times {}^{3}/_{8} \times {}^{11}/_{32}$". Wt. 2 oz.



TYPE PW-5 5-WATT RESISTOR

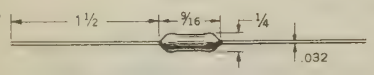
Stock No.	Ohm Values (See Table at Left)	EACH 1-49	50-499	500-999	1000-Up
962-8XXX	1, 2, 3, 4, 5, 7.5, 10, 15, 25, 30, 50, 100, 150, 200, 250, 300, 500, 1k, 1.5k, 2k, 2.25k, 2.5k, 3k, 5k	.55	.36	.27	.15

TYPE PW-10 10-WATT RESISTORS

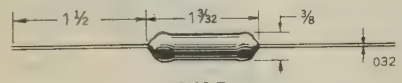
Stock No.	Ohm Values (See Table at Left)	EACH 1-49	50-499	500-999	1000-Up
962-9XXX	1, 2, 5, 7.5, 10, 15, 20, 25, 30, 50, 75, 100, 150, 200, 250, 300, 500, 1k, 1.5k, 2k, 3k, 5k, 10k, 20k, 25k	.60	.39	.30	.19

VITREOUS ENAMELED MOLDED RESISTORS

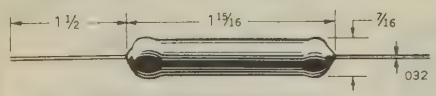
VC3D



VC5E



VC10F



Wirewound resistors with molded vitreous enamel coating for improved heat insulation and heat dissipation. Uniform size permits mounting in metal clips for heatsink affect allowing up to 100% wattage increase. Uniform insulation thickness for 1000VAC breakdown rating. Will withstand high humidity and immersion in salt solution. 1½" tinned leads. Tolerance is ±5% for 1 ohm and higher, ±10% below 1 ohm. Meets MIL-R-26 for RW57, RW58, RW59, RW77, RW68, and RW69. Av. shpg. wt. per 25 is 4 oz.

STYLE VC-3D / 3AE — 3¼ WATT

Stock No.	Stock Values (Ohms) See Table Right	EACH 1-9	10-49	50-99	100-Up
880-4XXX	1, 2, 3, 4, 5, 10, 15, 25, 33, 50, 75, 100, 150, 200, 300, 330, 400, 600, 680, 1k	.73	.62	.51	.40
880-4320	1.5k	.79	.67	.56	.44
880-4424	10k	.81	.69	.57	.45

STYLE VC-10F / 10AE — WATT

Stock No.	Stock Values (Ohms) See Table Below	EACH 1-9	10-49	50-99	100-Up
880-6XXX	1, 2, 10, 100, 500, 1k	.85	.72	.59	.46
880-6XXX	1.5k, 2k, 5k	.95	.81	.66	.52
880-6424	10k	1.07	.91	.74	.59
880-6467	25k	1.23	1.05	.87	.67

STYLE VC-5E / 5AE — 5 WATT

Stock No.	Stock Values (Ohms) See Table Right	EACH 1-9	10-49	50-99	100-Up
880-5XXX	1, 5, 10, 15, 20, 50, 100, 150, 200, 250, 500, 1k	.79	.67	.56	.44
880-5XXX	1.5k, 2k, 2.5k, 3.3k, 5k	.81	.70	.57	.45

TYPE VC VALUES AVAILABLE FROM STOCK

Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX	Ohms	XXX
1	004	15	104	100	184	400	247	2k	334
2	027	20	114	150	200	500	260	2.5k	347
3	040	25	124	200	210	600	270	3.3k	357
4	054	33	134	250	224	680	277	5k	384
5	064	50	157	300	230	1k	300	10k	424
10	090	75	174	330	234	1.5k	320	25k	467

Wirewound, Adjustable & Fixed Power Resistors

WIREWOUND RESISTORS

Wirewound resistors designed for applications such as voltage dropping, bias supplies, bleeders. Have thick vitreous enamel coating for excellent heat conduction and insulation. Fully protected against humidity and moisture. Tolerance is ±5%. Please complete Stock Numbers by referring to Table A. Average ship. wt. per 25, 8 oz.

STYLE VPR-10 /1HJ — 12 WATT

Stock No.	Stock Values (Ohms) See Table "A" Below	EACH 1-9	10-49	50-99	100-Up
877-7XXX	4, 5, 7.5, 10, 15, 20, 25, 50, 75, 100, 150, 200, 250, 300, 500, 600, 1K	.80	.67	.56	.44
877-7XXX	1.5K, 2K, 3K, 4K, 5K	.85	.72	.59	.46
877-7XXX	10K	.95	.81	.66	.52
877-7504	50K	1.28	1.09	.90	.71

STYLE VPR-20H/2HJ — 20 WATT

877-8XXX	5, 10, 25, 75, 100, 500, 1K	.93	.79	.65	.51
877-8XXX	10K	1.23	1.05	.87	.67
877-8537	100K	2.14	1.82	1.50	1.18

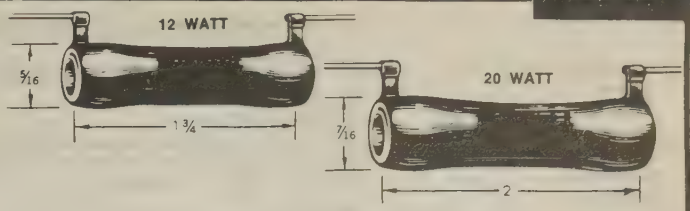


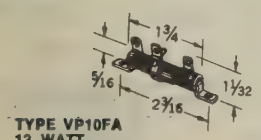
TABLE "A" STOCK VALUES

Complete Allied Stock No. by replacing Allied Stock No. suffix XXX with 3-digit number shown in column XXX directly opposite desired ohm value

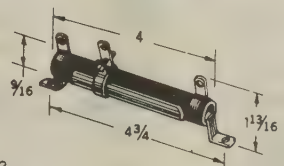
Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX	Ohm	XXX
4.0	054	25	124	250	224	1500	320	5100	387
5.0	064	50	157	300	230	2000	334	10K	424
7.5	080	75	174	500	260	3000	354	25K	467
10	090	100	184	600	270	4000	370	50K	504
15	104	150	200	1000	300	5000	384	100K	537
20	114	200	210						

PRECISION WIREWOUND VITREOUS ENAMEL RESISTORS (See Cross-Reference Below)

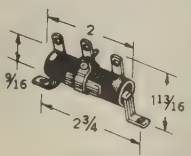
Adjustable Type. For voltage dividing networks, power supplies, transmitters—anywhere adjustable resistance is required. These resistors feature fine alloy wire, precision wound on high quality ceramic cores and insulated by vitreous enamel coatings. Slider lug and mounting brackets are included with each resistor. Resistance tolerance is ±10% of the total resistance value. Wattage rating applies only when the entire resistance is in the circuit; with adjustable lug at intermediate point, rating is reduced in the same proportion. Wattage ratings are for free air mounting. **Important — See Table B (Below) Before Ordering.** Av. shpg. wt. 5-50 watts, 4 oz; 100 watts and up, 1 lb.



TYPE VP10FA
12 WATT

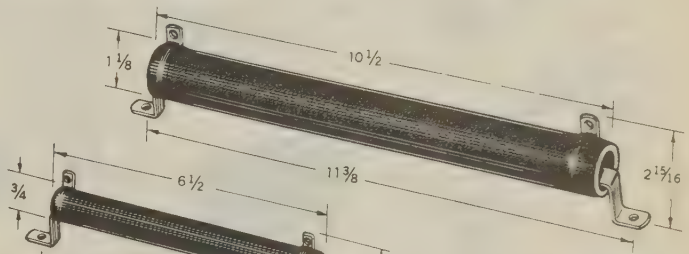


TYPE VP50KA
50 WATT

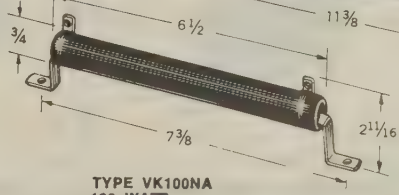


TYPE VP25KA
25 WATT

Fixed Types. These precision wirewound resistors are especially designed to meet a wide variety of military, industrial and general consumer applications. They offer long life and extremely reliable service. For use as voltage droppers, bias resistors and bleeders in applications where resistance need not be varied. Feature fine alloy wire, wirewound on quality ceramic cores and covered with vitreous enamel coatings — the best conductor of heat for a material which must also be a good electrical conductor. Resistance tolerance: ±5% for values 1 ohm or higher. Wattage ratings are for use in free air. Av. shpg. wt. 5-50 watts, 1.1 oz.; 100 watts and up, 7.5 oz. **See Table B (Below) Before Ordering.**



TYPE VK200WA
225 WATT



TYPE VK100NA
100 WATT

ADJUSTABLE RESISTORS

VP10FA/1AV — 12 WATTS

Stock No.	Resistance (Ohms) See Table B	EACH 1-9	10-49	50-99	100-Up
880-10XX	1, 5, 10, 25, 50, 75, 100, 150, 250, 500, 1K	1.61	1.37	1.12	.89
880-10XX	1.5K, 2K, 5K	1.66	1.41	1.17	.91
880-1073	10K	1.82	1.55	1.27	1.00

VP25KA/2AV — 25 WATTS

880-11XX	1, 2, 3, 5, 10, 15, 25, 75, 100, 250, 500, 1K	1.77	1.56	1.24	.97
880-11XX	2.5K	1.82	1.55	1.27	1.01

VP50KA/5AV — 50 WATTS

880-1201	1	3.00	2.55	2.10	1.65
880-12XX	2, 3, 5, 10, 25, 50, 75, 100, 150, 200, 250, 500, 750, 1K	2.35	2.00	1.65	1.29
880-1273	10K	2.46	2.10	1.72	1.36
880-1284	50K	3.10	2.64	2.17	1.71

VK100NA/10AV — 100 WATTS

Stock No.	Resistance (Ohms) See Table B	EACH 1-9	10-49	50-99	100-Up
880-14XX	1, 2	3.96	3.37	2.77	2.18
880-14XX	5, 10, 25, 50, 100, 250, 500, 1K	3.96	3.37	2.77	2.18
880-1467	5K	3.14	2.66	2.20	1.73

VK200 WA/20AV — 225 WATTS

880-15XX	1, 2, 3, 5	6.60	5.61	4.62	3.63
880-15XX	10, 25, 50, 100, 250, 500, 1K	5.03	4.28	3.52	2.77
880-1567	5K	5.06	4.30	3.54	2.78

CROSS REF./ADJ. RESISTORS

Watts	Clarostat	Mallory	Memcor	Ohmite
12	VP10FA	1AV	AR10-12	210-12
25	VP25KA	2AV	AR-25	210-25
50	VP50KA	5AV	AR-50	210-50
75	VP75KA	7.5AV	AR-75	210-75
100	VK100NA	10AV	AR-100	210-100
225	VK200WA	20AV	AR-225	210-225

ORDER INFORMATION — TABLE B

To complete Allied Stock No. replace XX with appropriate code from chart below.

Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX	Ohms	XX
1.0	01	5.0	06	50	18	200	32	1K	48	5K	67
2.0	03	10	08	75	22	250	34	1.5K	53	10K	73
3.0	04	15	09	100	24	500	40	2K	54	50K	84
4.0	05	25	12	150	29	750	44	2.5K	57	100K	92

FIXED POWER RESISTORS

FR10-12 — 12 WATTS

Stock No.	Resistance (Ohms) See Table B	EACH 1-9	10-49	50-99	100-Up
880-20XX	10, 100, 1K	.79	.67	.56	.44

VP25K/2.5HJ — 25 WATTS

880-21XX	1, 2, 3, 5, 10, 15, 25, 50, 100, 250, 500, 750, 1K	.98	.83	.68	.55
880-21XX	1.5K, 5K	1.02	.87	.72	.56
880-2192	100K	2.19	1.86	1.54	1.21

VP50K/5HJ — 50 WATTS

880-2201	1	1.55	1.32	1.09	.86
880-22XX	2, 3, 4, 5, 10, 25, 50, 100, 150, 500, 1K	1.55	1.32	1.09	.86

In order to service our customers better if delivery shortages occur, we will ship identical parts from one of three sources.

VK100N/10HJ — 100 WATTS

Stock No.	Resistance (Ohms) See Table B	EACH 1-9	10-49	50-99	100-Up
880-23XX	1, 3	3.00	2.55	2.10	1.65
880-23XX	4, 100, 250, 500	2.14	1.82	1.50	1.18

VK200W/20HJ — 225 WATTS

880-25XX	1, 2, 4, 5	5.03	4.28	3.52	2.77
880-25XX	10, 25, 50, 75, 100, 250	3.53	3.01	2.47	1.95

CROSS REF./FIXED RESISTORS

Watts	Clarostat	Mallory	Memcor	Ohmite
12	.....	.....	FR-10-12	270-12
25	VP25K	2.5HJ	FR-25	270-25
50	VP50K	5HJ	FR-50	270-50
100	VK100N	10HJ	FR-100	270-100
175	VK160W	16HJ	FR-160-175	270-175
225	VK200W	20HJ	FR-200-225	270-225

ATTENTION BUYERS

Make Allied your one-stop headquarters for all your industrial needs. Pay OEM factory prices, slash handling expenses and reduce paperwork in purchasing and receiving. You place one order, receive one shipment and make one disbursement.

Potentiometers

POTENTIOMETER AND CONTROL INDEX

Attenuators, L&T Pads
Mallory 62
TRW/IRC 55

Dials, Turns Counting
Amphenol 60
TRW/IRC 60

Potentiometers, Commercial
TRW/IRC 55

Potentiometers/Controls
Mallory 56, 57, 58
Clarostat 57

Potentiometers, Linear Motion
Maurey 61

Potentiometers, MIL-Spec.
Clarostat 58
TRW/IRC 54

Potentiometers, Multi-Turn
CTS 60
TRW/IRC 61

Potentiometers, Slide-Actuated
Duncan 61
Mallory 61

Potentiometers, Ten-Turn
Amphenol 60
Duncan 59
Electro-Technics 59
TRW/IRC 59

Resistor Networks
CTS 58

Rheostats & Dial Plates
Clarostat 62

Trimmers
Amphenol 56
CTS 56

CROSS REFERENCE INDEX — POTENTIOMETERS, CONTROLS AND KNOBS

TRW/IRC	BOURNS	DALE	BECKMAN	SPECTROL
400-00	3057L	1898	...	40-1-1
...	...	2188	...	...
40-20	3057Y	2187	...	...
76-10	3389P	...	72P	63P
76-22	3389W	...	...	...
100	3345P	...	...	84-3-8
170	3329H	...	61/62/62PF	62-1-1
...	...	...	...	62-1-2
182	3329W	...	61PA/62PA	62-2-1
...	...	...	...	62-2-2
...	...	...	...	62-2-10
205-208	3250W	5080	...	55-3-10
...	...	...	...	55-3-20
450-00	3052L	8188	55L	749-1-1
...	3059L	...	78L	949-1-1
450-10	3052P	8187	56P	...
...	3059P	...	...	...
450-20	3052Y	...	58P	749-2-1
...	3059Y	...	78P	949-2-1

TRW/IRC	BOURNS	DALE	BECKMAN	SPECTROL
500	3345P	...	...	84-3-8
550	3329	...	62P	53-1-1
...	3389	...	62PF	62-3-1
556	3329	...	62P	62-2-1
...	3389	...	62PF	...
910-20	3005P	2417	...	41-1-1
960-20	3001P	8417	89P	41-2-1
...	3006P	8487	...	43P
...	3009P	...	...	...
961-20	3006P	8417	89P	41-2-1
...	...	8487	...	43P
HD150	3400S	...	...	...

TRW/IRC	BOURNS	BECKMAN/HELIPOT	SPECTROL
151	3437	5311	130
...	...	...	132
8400	3540	7246	530
...	...	7266	534
...	...	7266	534
...	...	7276	...
8403	3543	...	533

MILITARY TRIMMERS AND POTENTIOMETERS (DUAL MARKED)

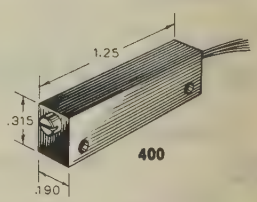
All meet military specifications. **MIL-R-27208.** Resistance tolerance is ±5%. Temperature coefficient, ±50 ppm/°C. **Type 205.** Optimum 28:1 ratio provides precision adjustment. Diallyl phthalate case. Teflon insulated leads or pins. **Type 400.** Rigid unibody molded case. Type 00 has Teflon leads, type 20 gold plated pins. **Important: See Table A at bottom of page for How to Order.**

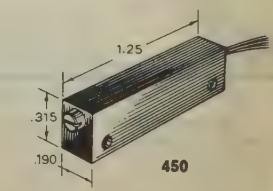
Stock No.	Mfr's Type	Military Type	Type	Term Style or Mounting	Pwr Watts °C	Temp Range °C	Turns	Torque oz.—Turns	Std. Res. Ohms Specify Values	EACH 1-9	10-24	25-49	50-Up
822-37RC	205-208	RT-22C2W	½"	Edge Mtg. PC	1/70	−65/+175	25±2	.....	1k, 2k, 10k	7.10	5.68	4.25	4.00
822-3744	205-208	RT-22C2W	square	Edge Mtg. PC				.....	20k	7.83	6.26	4.66	4.40
822-44RC	400-00	RT-12C2L	1¼"	Wire leads	1/70	−65/+150	22±5	0.1	200, 10k, 1k	7.88	6.30	5.26	4.47
822-4444	400-00	RT-12C2L	1¼"	Wire leads	1/70	−65/+150	22±5	.....	20k	8.25	6.60	5.08	4.71
822-4453	400-00	RT-12C2L	rect.	Wire leads				to	50k	9.38	7.50	6.27	5.33
822-47RC	400-20	RT-12C2Y		PC				8.0	5k, 10k	7.88	6.30	5.26	4.47

METAL GLAZE® MILITARY AND INDUSTRIAL TRIMMER POTENTIOMETERS (DUAL MARKED)

All meet military environmental specs of **MIL-R-22097, Characteristic C.** Temperature coefficient ±100 ppm°C maximum. Rotation life, 200 cycles without discontinuity. Load life, 1000 hours minimum at rated power. Resistance tolerance, ±10%. Infinite resolution due to Metal Glaze® element. Gold-plated pins. Rigid unibody molded case construction. Humidity-proof construction. Excellent high-frequency characteristics. **See Table A Below for How to Order.**

822-52RC	450-10 (10%)	RJ-12P	1¼"	Wire leads	1/70	−55/+150	22±2	.....	500, 1k, 2k, 5k, 10k	7.88	6.30	5.26	4.47
822-54RC	450-20 (10%)	RJ-12Y		PC pins	1/70	−55/+150	22±2	.....	500, 1k, 2k, 5k, 10k	7.88	6.30	5.26	4.47





HOW TO ORDER — TABLE A

Complete the Stock No. by placing the Designated Resistance Code for Ohms (RC) in Stock No.

Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
200	20	500	26	1000	29	2000	32	5000	38	10k	41	20k	44	50k	53	100k	59

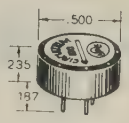
Specify Stock No., Mfr's Type and Values Wanted With Your Order

Commercial Potentiometers and RF Attenuator

LOW COST COMMERCIAL TRIMMERS AND POTENTIOMETERS

Resistance tolerance, ±10%. Temperature Coefficient, ±70 ppm/°C. Power rating in table. **Type 40.** Long-winding element. Silver-brazed multi-wire terminations. Self-locking shaft. Type 00 has stranded teflon leads. **Type 60.** Gold-plated pins. **Type 70.** Mini configurations. Self-locking shaft. **Type 500.** Single-turn action. Gold-plated pins. **Type 910.** Low temperature coefficient premium resistance wire. Completely sealed. **Important: See Table A for how to order and to complete the Stock Number.**

Stock No.	Mfr's Type	Type	Term Style or Mounting	Pwr Watts @ °C	Temp Range °C	Turns	Torque oz.–in.	Std. Res. Ohms Specify Values	EACH 1-9	10-24	25-49	50-Up
822-15RC	40-00	1½" rect.	Wire Leads	1/50	−65/+150	22±5	8	100, 1k, 2k, 5k, 10k	4.95	3.80	3.15	3.00
								20k	5.50	4.25	3.90	3.75
822-19RC	40-20	1½" rect.	Staggered Pins	1/70	−55/+125	22±5	8	100, 1k, 2k, 5k, 10k	4.95	3.80	3.15	3.00
								20k	5.50	4.25	3.90	3.75
822-08RC	60-20	1¼" rect.	Staggered pins	1/70	−55/+125	22±5	8	1k, 10k	4.50	3.67	3.38	3.14
822-23RC	76	⅜" sq.	Tr. Socket/PC	.5/70	−55/+125	1(280°)	.....	100, 1k, 2k, 5k, 10k	4.75	3.32	3.15	2.97
								20k	6.07	4.95	3.75	3.55
822-33RC	170	¼" round	Tr. Socket/PC	.5/85	−55/+150	1	.....	100, 1k, 2k, 5k, 20k	2.75	1.66	1.57	1.50
822-36RC	182	¼" square	Tr. Socket/PC	.5/70	−55/+150	1 (280°)	.....	100, 1k, 2k, 10k, 20k	2.75	1.66	1.57	1.50
822-12RC	100	½" round	Tr. Socket/PC	1/70	−55/+150	1	.025 to 7.5	1k, 10k	4.38	3.50	2.70	2.45
822-1329	100-1		PC					1k	4.38	3.50	2.70	2.45
822-56RC	500	½" round	PC	1/50	−55/+125	1	7.5	100, 200, 1k, 5k, 10k	3.03	2.42	1.85	1.71
								20k	3.30	2.64	2.03	1.89
822-77RC	910-20	¾" rect.	Staggered pins	1/40	−65/+125	20	5	1k, 5k	2.38	1.90	1.59	1.46
822-73RC	800-20	5/16" sq.	Edge Mtg. PC	.6/70	−65/+150	15±2	3	1k, 5k	7.38	5.90	4.54	4.21



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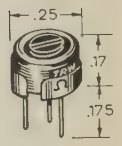

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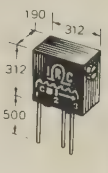

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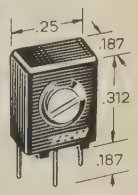

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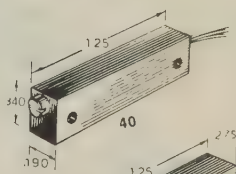

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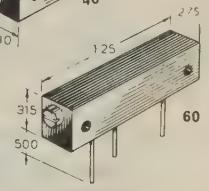

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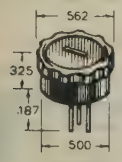

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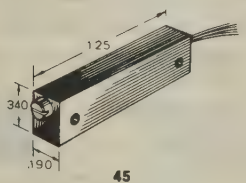

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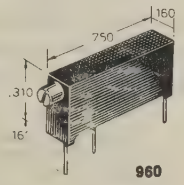

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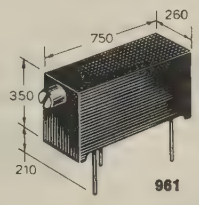
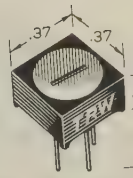


961

Stock No.	Mfr's Type	Trimmer Potentiometer Type	Term Style or Mounting	Pwr Watts °C	Temp Range °C	Temp Coeff ppm/°C	Turns	Torque oz.-in.	Res Tol %	Std. Res. Ohms See Table A	EACH 1-9	10-24	25-49	50-Up
822-58RC	550	½" round	Std. mnt.	0.5/70	−55/+150	±150	1	7.5	±30	200, 1k, 2k, 10k, 20k, 100k	3.03	2.42	1.86	1.72
822-59RC	556	½" round	Vertical Mtg.	0.5/70	−55/+150	±150	1	7.5	±30	1k, 10k	3.95	3.16	2.43	2.26
822-7659	45-00	1¼" rectangular	Wire lead	.75/70	−55/+150	±250	22±5	8.0	±20	100k	4.95	3.80	3.15	3.00
822-80RC	45-10		In-line pins							1k, 10k	4.95	3.80	3.15	3.00
822-81RC	960-20	¾" rectangular	Staggered	0.75/40	−65/+125	±100	20	5.0	±10	100, 2k, 10k	2.88	2.30	1.92	1.63
822-87RC	961-20	¾" rectangular	Staggered	0.75/40	−65/+125	±100	20	5.0	±10	1k, 5k, 10k, 20k, 50k, 1 meg.	2.13	1.70	1.42	1.21



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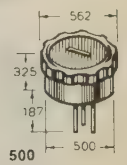

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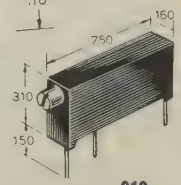


910

HOW TO ORDER—TABLE A

Complete the Stock No. by placing the Designated Resistance Code for Ohms (RC) in Stock No.

Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
50	07	100	13	200	20	500	26	1000	29	2000	32	5000	38	10k	41	20k	44	50k	53	100k	59	200k	68	1 meg	87

Alec Electron Says –

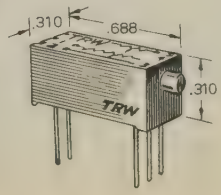
Type CT9950 RF Attenuator

NEW!

Precision-made RF attenuator. Rated .125 W @ 70° C. Operating temperature range −55 to +125° C, working voltage 1000 VDC. Characteristic impedance 75 ohms ±20% (INPUT and OUTPUT), less than 10% impedance change after 1000 hours at rated power. 1800° travel (5 turns) with clutches after each rotation.

822-0010. 1-9.....Ea. 8.75 10-24.....Ea. 6.95 25-49.....Ea. 5.75 50-Up.....Ea. 4.95

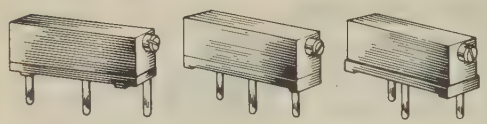
- **Dependable and Accurate**
- **5 Revolutions**
- **Low Impedance Change**



Prices Subject to Change—We Always Ship at Lowest Price in Effect

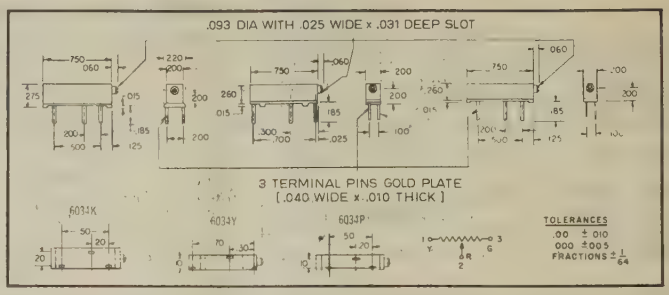
Adjustment Potentiometers and Trimmers

SERIES 6034 COMMERCIAL CERMET ELEMENT TRIMMERS



6034K 6034Y 6034P

ACTUAL SIZE



Low-cost, commercial cermet-element trimmers offer infinite resolution in a wide resistance range. Multi-finger precious metal contact reduces CRV to a minimum, enhances rotational life. Commercial ¾" rectangular style with solvent-resistant nylon case and popular 0.100" PC pin spacing. Immersion proof; ideal for use in automated board cleaning processes. Available in resistance values from 100 ohms to 200k ohms, with temperature coefficient as low as 50 PPM/ C. Shpg. wt. 2 oz.

- **Rectangular ¾" Style with Popular .100" Printed Circuit Pin Spacing**
- **Immersion-proof Case Is Ideal for Automated Board Cleaning Processes**

RESISTANCE VALUES AND PRICES

Ohms	Maximum mA	Maximum Volts	P Terminal Stock No.	P Terminal Mfr's Type	K Terminal Stock No.	K Terminal Mfr's Type	Y Terminal Stock No.	Y Terminal Mfr's Type	EACH (Any Terminal Type) 1-9	10-24	25-49	50-Up
100	71	7.0	714-9451	6034P-101	.....	.....	.....	.....	1.88	1.50	1.21	1.19
1000	22	22.3	714-9454	6034P-102	.....	.....	714-9491	6034Y-102	1.88	1.50	1.21	1.19
2000	16	31.6	714-9455	6034P-202	714-9474	6034K-202	.....	.....	1.88	1.50	1.21	1.19
5000	10	50.0	714-9456	6034P-502	.....	.....	.....	.....	1.88	1.50	1.21	1.19
10k	7.1	70.7	714-9457	6034P-103	714-9478	6034K-103	714-9494	6034Y-103	1.88	1.50	1.21	1.19
20k	5.0	100.0	714-9458	6034P-203	714-9479	6034K-203	.....	.....	1.88	1.50	1.21	1.19
50k	3.2	158.0	714-9459	6034P-503	714-9480	6034K-503	714-9496	6034Y-503	1.88	1.50	1.21	1.19
100k	2 2	223.0	714-9460	6034P-104	714-9481	6034K-104	.....	.....	1.88	1.50	1.21	1.19
200k	1.5	300.0	714-9461	6034P-204	714-9482	6034K-204	.....	.....	1.88	1.50	1.21	1.19

SPECIFICATIONS

ELECTRICAL: **Resistance Values:** 100 ohms to 200k ohms. **Resistance Tolerance:** ±10%. **Resolution:** Infinite. **End Resistance:** 1% or 20 ohms, whichever is greater. **Usable Range:** 100%. **Insulation Resistance:** 1000 megohms minimum. **Output:** Linear, with shaft adjustment. **Contact Resistance Variation:** 3% of total resistance or 20 ohms, whichever is greater. **Continuity:** Continuous and unidirectional, maintained for full mechanical range.

MECHANICAL. **Number of Turns:** 15. **Mechanical Stops:** Contact idles with no electric discontinuity. **Shaft Torque:** 8.0 oz.-in. max. **Rotational Life:** 200 cycles min. with no discontinuity. **Terminal Type:** PC pins. **Weight: Approx.** 1.3 grams. **Volume:** .0399 cu. in.

ENVIRONMENTAL. **Operating Temperature Range:** —55°C to +125°C (—67°F to +257°F). **Power Rating:** ½ watt at 85°C, derated to zero at 125°C. Temperature Coefficient: 100 PPM°C. **Vibration:** Per MIL-STD-202B, Method 204A—Cond. D. **Shock:** Per MIL-STD-202B, Method 213—Cond. I. **Dielectric Strength:** 900 V rms at room temperature. **Load Life:** 1000 hours, ½ watt at 85°C. **Humidity:** Sealed construction. **Humidity-Moisture Resistance:** Per MIL-STD-202B, Method 106.

MINIATURE ¼-WATT TRIMMER CONTROLS

MTC-L1 MTC-L4

- **Vertical or Horizontal Mounting**
- **Linear Taper • 270° Rotation**
- **Maximum Rating, 500 Volts**

Highly reliable miniature ¼-watt trimmers designed especially for printed circuits in a wide variety of commercial and industrial applications. Can be used in transistorized or tube circuits—wherever an occasionally adjusted, variable resistance is needed. All have flush, open, crossed slot. Adjustments can be made with either a blade or standard Phillips-type screw driver. All have linear taper; 270° rotation; 500 volts maximum rating. All are 9/16" diameter. Available in two types for vertical or horizontal mounting applications. See price chart below. Wt. 3 oz.

Ohms	MTC-L1 Stock No.	MTC-L1 Type	MTC-L4 Stock No.	MTC-L4 Type
100	854-6100	MTC12L1	854-6200	MTC12L4
500	854-6113	MTC52L1	854-6213	MTC52L4
1000	854-6120	MTC13L1	854-6220	MTC13L4
2000	854-6127	MTC23L1	.....	.....
5000	854-6133	MTC53L1	854-6233	MTC53L4
10k	854-6143	MTC14L1	854-6243	MTC14L4
25k	854-6153	MTC253L1	854-6253	MTC253L4
50k	854-6157	MTC54L1	.....	.....
100k	854-6160	MTC15L1	854-6260	MTC15L4
500k	854-6180	MTC55L1	854-6280	MTC55L4
1 meg	854-6183	MTC16L1	854-6283	MTC16L4
2 meg	.....	.....	854-6287	MTC26L4

Type	Mount	1-9	10-24	25-49	50-Up
MTC-L1	Vert.	.43	.34	.29	.24
MTC-L4	Hor.	.43	.34	.29	.24

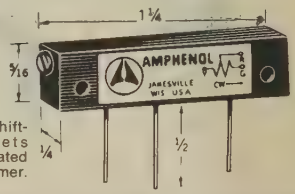
TYPE 3800 WIREWOUND MICROPOT TRIMMERS

3800P

Commercial ¾" rectangular style has solvent resistant nylon case with semi-transparent top — makes element and contact carrier fully visible for approximate settings. Suffix P indicates 0.100" pin spacing; Suffix K indicates new 0.200" pin spacing. Power rating, 1 watt at 40°C. Temperature range, —65/C to +125°C. Resistance tolerance, ±10%. Resolution: .22 to 1.78%. Values available: **100, 200, 500, 1000, 5000, 10k and 20k—See Table A, right.** Shpg. wt. 2 oz.

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
714-77RC	3800P	2.38	1.90	1.46	1.39

TYPE 992P WIREWOUND MICROPOT TRIMMERS



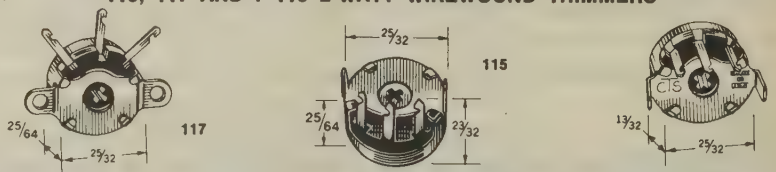
Ratcheting clutch, shift-proof wiper. Meets MIL-STD-202. Goldplated PC pins. 22-turn trimmer. 2 oz.

Stock No.	Mfr's Type	Values, Ohms (See Table A)	EACH 1-9	10-24	25-Up
714-42RC	992P	100, 500, 1k, 2k, 5k, 10k	4.45	3.74	2.46
714-4250	992P	20k	4.45	3.74	2.46

Value Table A: To complete Allied Stock No., insert Resistance Code (RC) shown opposite Ohms in place of RC in Stock No.

Ohms	RC	Ohms	RC	Ohms	RC	Ohms	RC
100	20	500	30	2000	38	10k	45
200	25	1000	35	5000	40	20k	50

115, 117 AND P-115 2-WATT WIREWOUND TRIMMERS



Miniature trimmers have enclosed construction that protects unit from dust to assure silent operation. Insulated rotor isolates device from possible damage. Rotor has screwdriver slot. P-115 twist-tab mount, 117 rivet-ear mount, 115 PC mount. Printed circuit terminals. Linear taper. 10% tolerance. Two watts at +55°C. 270° ±5° rotation. 500 VDC max. V. Turning torque is ½ to 10 in.-oz. Stop strength is 4 in.-lbs. Shpg. wt. 2 oz.

Stock No.	Type 117	Ohms	Stock No.	Type P115	Ohms	Stock No.	Type 115	Ohms
745-5000	R5R0A	5	745-1600	R5R0A	5	.....	.....	.....
745-5025	R250A	25	.....	.....	....	.....	.....	.....
.....	.....	....	745-1730	R500A	50	.....	.....	.....
745-5010	R101A	100	745-1701	R101A	100	.....	.....	.....
.....	.....	....	745-1720	R251A	250	.....	.....	.....
745-5045	R501A	500	745-1735	R501A	500	.....	.....	.....
.....	.....	....	745-1740	R502A	5000	745-4950	R502A	5000
.....	.....	....	745-1710	R103A	10K	745-4920	R103A	10K

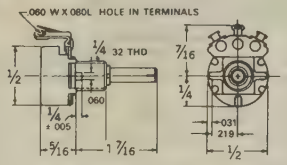
1-24 ..... Ea. 1.25 | 25-49 ..... Ea. 1.00 | 50-99 ..... Ea. .75 | 100-Up ..... Ea. .60

Midgetrol Controls and Potentiometers

TYPE MLC ½" DIAMETER ¼ AND ⅛-WATT CARBON CONTROLS

- **Steel or Nylon Shaft**
- **Linear Taper**
- **Audio Taper**
- **SPST Switch**

MLC

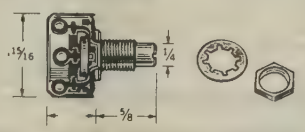


Linear rated ¼-watt, audio rated ⅛-watt. Bushing ¼"-32. Shaft: steel (except Type MLCN, nylon), ⅛" diameter x 1 7/16. *Taper No. 1 for audio, antenna shunts. †Taper No. 4 linear for voltage control. SPST switch (U/L listed) rated 3 amp 125 VAC available with steel shaft. Mount nut. Shpg. wt. 1 oz.

Stock No.	Type	Ohms	Taper	Stock No.	Type	Ohms	Taper	EACH 1-9	10-24	25-49	50-Up
854-5800	MLC13L	1000	†4	854-5815	MLC15L	100k	†4	1.75	1.40	1.17	.99
854-5830	MLC53L	5000	†4	854-5860	MLCN16A	1 meg	*1	1.75	1.40	1.17	.99
854-5805	MLC14L	10k	†4	854-5865	MLCN16L	1 meg	*1	1.75	1.40	1.17	.99
854-5835	MLC54L	50k	†4	.....	.....	....	..	1.75	1.40	1.17	.99

TYPE SU ½-WATT MIDGETROLS

Exact replacements in TV sets and other applications. Have ⅝" long x ¼" dia. fixed, knurled and slotted phenolic shaft extending ¼" beyond bushing. 15/16" dia. Rated ½-watt. Linear taper. With washer, nut. Av. wt. 4 oz.

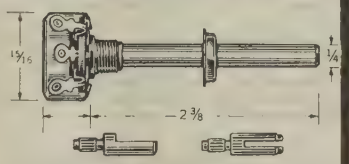


Stock No.	Type	Ohms	Stock No.	Type	Ohms
854-6606	SU-6	1500	854-6635	SU-35	50k
854-6614	SU-14	5000	854-6641	SU-41	100k
854-6620	SU-20	10k	854-6646	SU-46	250k
854-6629	SU-29	25k	854-6650	SU-50	500k

1-9 ..... Each 1.58 10-24 ..... Each 1.26
25-49 ..... Each .85 50-Up ..... Each .74

TYPE U ½- and 1-WATT METAL SHAFT MIDGETROL CONTROLS

For audio, tone and similar control circuits. Available in a full line of resistances, tapers, and taps. Round, hollow shaft—easily cut to desired length. Two spline-shank knob adapters furnished with each Midgetrol — see illustration right. Taper No. 1: for audio or antenna shunt circuits (½ watt). Taper No. 4: Linear (1 watt). For voltage control. With nut and lockwasher. 15/16" dia. Brass shaft, 2⅜" long, ¼" dia. Less switch (below). 4 oz.



Stock No.	Type	Ohms	Taper	Stock No.	Type	Ohms	Taper
854-7301	U-1	100	4	854-7335	U-35	50k	4
854-7302	U-2	500	4	854-7339	U-39	100k	1
854-7304	U-4	1000	4	854-7341	U-41	100k	4
854-7312	U-12	5000	1	854-7344	U-44	250k	1
854-7314	U-14	5000	4	854-7346	U-46	250k	4
854-7318	U-18	10K	1	854-7348	U-48	500K	1
854-7320	U-20	10k	4	854-7350	U-50	500k	4
854-7326	U-26	20k	4	854-7353	U-53	1 meg	1
854-7329	U-29	25k	4	854-7354	U-54	1 meg	4
854-7333	U-33	50k	1	854-7382	U-82	10 meg	4

1-9 ..... Each 1.71 10-24 ..... Each 1.24
25-49 ..... Each .88 50-Up ..... Each .77

SWITCHES FOR MIDGETROLS (EXCEPT TYPE SU)

"Push-on, stay-on" switches for Midgetrols. Av. wt. 2 oz.

854-7426. US-26 SPST Switch. 1-9 ..... Each .69
10-24 ..... Each .55 25-49 ..... Each .46 50-Up ..... Each .39

854-7427. US-27 DPST Switch. 1-9 ..... Each .97
10-24 ..... Each .78 25-49 ..... Each .65 50-Up ..... Each .55

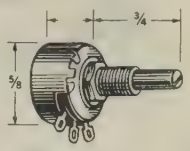
ALEC ELECTRON SAYS—

"A Good Place to Buy Midgetrol Controls and Pots is from Allied Electronics. Write, Wire or Phone. We've Got Four Stocking Locations Coast-to-Coast and Sales Offices in Principle Cities to Give You Better, Faster Service."

SERIES 381 1-WATT 5/8" DIAM. POTENTIOMETERS

A great potentiometer with characteristics far better than those costing much . . . much more! Just look!

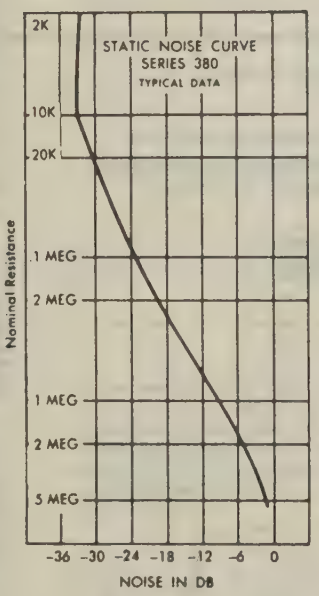
- **Precision Machined from Corrosion Resistant and Non-Magnetic Materials**
- **Rotational Life 100,000 Cycles Under Load**
- **Homogeneous, Strain-Free Thick-Film Resistance Element with 1% Dynamic Noise, 5% Independent Linearity**
- **Meets Stringent MIL-R-94 Specifications**

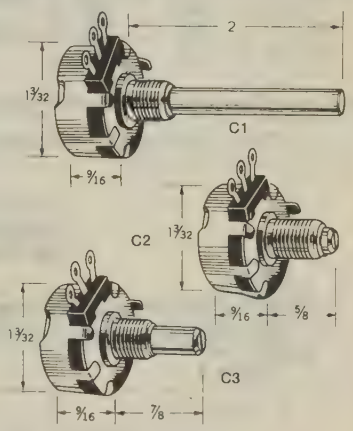


Construction: plain ¼" long bushing with ¼-32 NEF-2A thread; brass nickel plated shaft ¾" long; dust and splash proof housing; cover to base epoxy sealed; terminals molded into base and sealed for solderability per MIL-STD-202, Method 208B. Resistance tolerance: Linear up to 500k ohms ±10%, above 500k ohms ±20%.

Stock No.	Mfr's Type	Ohms	EACH 1-9	10-49	50-99	100-Up
753-8329	381N-250	250	2.93	2.20	1.88	1.36
753-8335	381N-500	500	2.93	2.20	1.88	1.36
753-8347	381N-1000	1000	2.93	2.20	1.88	1.36
753-8359	381N-5000	5000	2.93	2.20	1.88	1.35
753-8361	381N-10K	10k	2.93	2.20	1.88	1.36
753-8367	381N-25k	25k	2.93	2.20	1.88	1.36
753-8373	381N-50k	50k	2.93	2.20	1.88	1.36
753-8375	381N-100k	100k	2.93	2.20	1.88	1.36
753-8381	381N-250k	250k	2.93	2.20	1.88	1.36
753-8383	381N-500k	500k	2.93	2.20	1.88	1.36
753-8387	381N-1 meg	1 meg	2.93	2.20	1.88	1.36

2-WATT SERIES 380 POTENTIOMETERS CALLED THE "QUIET ONES"





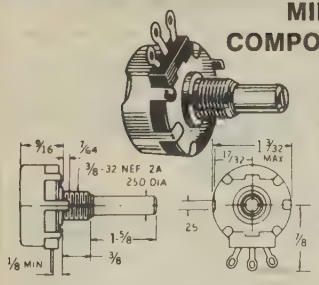
- **Linear Taper**
- **Manufactured in a Controlled Environment**
- **Outstanding Mechanical Life**
- **Strain-Free Resistance Element, 1% Dynamic Noise and 5% Independent Linearity**

These quiet, precision-made potentiometers are made by a controlled process that virtually insures a reliable, homogeneous and strainfree resistance element with 1% dynamic noise and 5% independent linearity. All have stainless steel shafts. **Type C1** has 2" round shaft FMS, ⅜" long bushing with ⅜" x 32-NEF-2A thread. **Type C2** has ⅝" screwdriver slotted shaft FMS with a ½" split locking bushing. **Type C3** has ⅞" screwdriver shaft FMS, ⅜" long bushing with ⅜" x 32-NEF-2A thread. Resis. Tol. up to 1 megohm ±10%, above ±20%. Dielectric strength, 1000VAC. Wt. 2 oz.

Stock No.	Type 380-	Allen Bradley Equiv.	Ohms	EACH 1-9	10-49	50-99	100-Up
753-5023	C1-100-S	JA1N200P101UA	100	2.75	2.10	1.78	1.61
753-5029	C1-250-S	JA1N200P251UA	250	2.75	2.10	1.78	1.61
753-5035	C1-500-S	JA1N200P501UA	500	2.75	2.10	1.78	1.61
753-5047	C1-1000-S	JA1N200P102UA	1000	2.75	2.10	1.78	1.61
753-5053	C1-2500-S	JA1N200P252UA	2500	2.75	2.10	1.78	1.61
753-5059	C1-5000-S	JA1N200P502UA	5000	2.75	2.10	1.78	1.61
753-5061	C1-10K-S	JA1N200P103UA	10k	2.75	2.10	1.78	1.61
753-5067	C1-25K-S	JA1N200P253UA	25k	2.75	2.10	1.78	1.61
753-5073	C1-50K-S	JA1N200P503UA	50k	2.75	2.10	1.78	1.61
753-5075	C1-100K-S	JA1N200P104UA	100k	2.75	2.10	1.78	1.61
753-5083	C1-500K-S	JA1N200P500UA	500k	2.75	2.10	1.78	1.61
753-5087	C1-1 Meg-S	JA1N200P105MA	1 meg	2.75	2.10	1.78	1.61
753-5135	C2-500-S	JA1L040S501UC	500	3.03	2.42	2.06	1.86
753-5161	C2-10K-S	JA1L040S103UC	10k	3.03	2.42	2.06	1.86
753-5173	C2-50K-S	JA1L040S503UC	50k	3.03	2.42	2.06	1.86
753-5175	C2-100K-S	JA1L040S104UC	100k	3.03	2.42	2.06	1.86
753-5223	C3-100-S	JA1N056S101UA	100	2.75	2.10	1.78	1.61
753-5235	C3-500-S	JA1N056S501UA	500	2.75	2.10	1.78	1.61
753-5247	C3-1000-S	JA1N056S102UA	1000	2.75	2.10	1.78	1.61
753-5253	C3-2500-S	JA1N056S252UA	2500	2.75	2.10	1.78	1.61
753-5259	C3-5000-S	JA1N056S502UA	5000	2.75	2.10	1.78	1.61
753-5261	C3-10K-S	JA1N056S103UA	10k	2.75	2.10	1.78	1.61
753-5267	C3-25K-S	JA1N056S253UA	25k	2.75	2.10	1.78	1.61
753-5273	C3-50K-S	JA1N056S503UA	50k	2.75	2.10	1.78	1.61
753-5275	C3-100K-S	JA1N056S104UA	100k	2.75	2.10	1.78	1.61
753-5283	C3-500K-S	JA1N056S504UA	500k	2.75	2.10	1.78	1.61
753-5287	C3-1 Meg-S	JA1N056S105MA	1 meg	2.75	2.10	1.78	1.61

MIL and Industrial Potentiometers and Resistor Networks

MIL-R-94B RV4 2-WATT COMPOSITION POTENTIOMETER



Crafted of the finest materials available to insure long, reliable service. Provides extra long life with very low noise level. 1/16" diameter. Rated 2 watts. Precision construction is completely enclosed. Carbon-ceramic element. RV4L designates 5/8" screwdriver slotted shaft FMS with 1/2" split locking bushing provided. RV4N indicates 7/8" screwdriver slotted shaft FMS. 3/8" long bushing has 5/8-32-NEF-2A thread. Av. shpg. wt. 4 oz.

STOCK NO.—LIST—SEE PRICES AT RIGHT

Stock No.	MIL Type RV4LAYSA-	Ohms	Stock No.	MIL Type RV4NAYSD-	Ohms
753-1001	101A	100	753-1301	101A	100
753-1075	251A	250			
753-1140	501A	500			
753-1005	102A	1000	753-1305	102A	1000
753-1055	202A	2000			
753-1080	252A	2500			
753-1145	502A	5000	753-1445	502A	5000
753-1010	103A	10k	753-1310	103A	10k
753-1085	253A	25k	753-1385	253A	25k
			753-1450	503A	50k
753-1015	104A	100k	753-1315	104A	100k
753-1090	254A	250k			
753-1155	504A	500k	753-1455	504A	500k
753-1020	105B	1 m	753-1320	105B	1 m
753-1160	505B	5 m			

HOW TO READ MIL NUMBERS

MIL-R-19A covers wirewound pots; MIL-R-94B carbon composition pots. "MIL" DESIGNATION FOR RV4-RV6 POTENTIOMETERS PER MIL-R-94

RV ( )	N	A	Y	SB	104	B
STYLE	BUSHING	SWITCH	TEMP. & MOISTURE RESIST. CHAR.*	OPERATING SHAFT+	RESISTANCE (OHMS)	RESIST. CHAR. & OVERALL RESIST TOLERANCE

STYLE: RV4-2 WATT; RV6-0.5 WATT
BUSHING: N-STANDARD; L-LOCKING
SWITCH: A-NONE

OPERATING SHAFTS+: 1ST Letter = Style
2ND Letter = Lgth. from mtg. surface
MIL-R-94

TEMP. & MOISTURE RESIST. CHAR.*

Max. Oper. Temp.	Ambient Temp.	Max. Resistance Change due to humidity test	Min. Insulation Resistance during humidity test
X	120°C	± 14%	50 Megohms
Y	120°C	± 10%	100 Megohms

Style

Symbol	—Style
F	—Flatted
S	—Slotted

Symbol	RV4 Flatted 1/4" Dia.	RV4 Slotted 1/4" Dia.	RV6 Slotted 1/8" Dia
A	—	1/2*	1/2*
B	—	1/2**	—
D	—	7/8	7/8
G	—	1 1/8	—
K	2 1/2	2 1/2	—

Length

RESIST. CHAR. & OVERALL RESIST. TOLERANCE A-Linear ± 10%
B-Linear ± 20%

RESISTANCE (OHMS): First two digits are significant and last one is number of zeros to follow.

*Used only with RV4L
**Used only with RV4N Type

Shaft lengths measured from mounting surface.

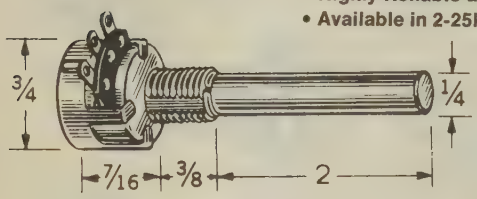
RV4 PRICING

MIL Type	EACH 1-9	10-49	50-99	100-Up
RV4N	1.95	1.60	1.50	1.25
RV4L	2.25	1.90	1.58	1.33

RV4 SPECIFICATIONS	
Res. Tol.	1 meg ± 10% over 1 meg ± 20%
Rotation	312° ± 3° without switch 333° ± 3° with switch
End Res.	Per MIL-R-94
Working V:	500 VDC across end term.

TYPE VW 5-WATT WIREWOUND CONTROLS

- ±5% Resistance Tolerance
- Highly Reliable and Economical
- Available in 2-25k Ohms

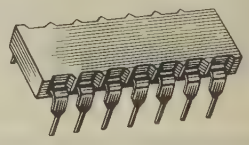


Only 3/4" diameter, 7/16" deep. Miniature size allows replacement of 1, 2, 3, and 4-watt wirewounds at low cost. Offer extended life, extra economy. Bushing: 3/8"x3/8" diameter, 1/4" plain round shaft, 2" long from mounting surface. All have linear taper; ±5% tolerance; 305° mechanical rotation, 275° electrical rotation. Available in a wide range of values to meet a variety of applications. Shpg. wt. 4 oz.

Stock No.	Mfr's Type	Ohms	EACH 1-4	5-9	10-49	50-Up
854-7602	VW-2	2	2.23	1.98	1.38	1.25
854-7605	VW-5	5	2.23	1.98	1.38	1.25
854-7610	VW-10	10	2.23	1.98	1.38	1.25
854-7620	VW-20	20	2.23	1.98	1.38	1.25
854-7625	VW-25	25	2.23	1.98	1.38	1.25
854-7650	VW-50	50	2.23	1.98	1.38	1.25
854-7700	VW-100	100	2.23	1.98	1.38	1.25
854-7720	VW-200	200	2.23	1.98	1.38	1.25
854-7725	VW-250	250	2.23	1.98	1.38	1.25
854-7750	VW-500	500	2.23	1.98	1.38	1.25
854-7753	VW-1k	1000	2.23	1.98	1.38	1.25
854-7760	VW-2k	2000	2.38	1.90	1.47	1.33
854-7763	VW-2.5K	2500	2.38	1.90	1.47	1.33
854-7773	VW-5k	5000	2.38	1.90	1.47	1.33
854-7777	VW-10k	10k	2.38	1.90	1.47	1.33
854-7783	VW-20k	20k	2.43	1.94	1.51	1.36
854-7787	VW-25k	25k	2.54	2.04	1.58	1.42

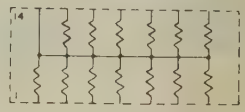
SERIES 760 DUAL-INLINE CERMET RESISTOR NETWORKS

- 1½-watt Capacity
- Low Height Profile
- 100" Lead Spacing
- High Overload Capability



Resistance tolerance: ±2%. Power Rating: 1½ watts @ 70° per module. Temperature coefficient: Overall, ±300 ppm/° C; TC tracking, 50 ppm/° C. Substrate material: alumina. Lead material: solder coated amzirc. Lead strength: 5 lb. pull. Load Life: 0.1 W per resistor at 70° C for 1000 hours. Unlimited applications in industrial, military, consumer and institutional procedures where space limitations are the utmost requirements. See diagrams at right for applications.

TYPE 760-1
14-PIN 13 RESISTOR



760-1 13-RESISTOR NETWORKS

Stock No.	Mfr's Type	Ohms	EACH 1-49	50-99	100-499	500-Up
745-7005	760-1-150	150	1.45	1.30	1.12	.91
745-7010	760-1-220	220	1.45	1.30	1.12	.91
745-7020	760-1-470	470	1.45	1.30	1.12	.91
745-7035	760-1-1k	1k	1.45	1.30	1.12	.91
745-7040	760-1-1.5k	1.5k	1.45	1.30	1.12	.91
745-7075	760-1-10k	10k	1.45	1.30	1.12	.91

Applications: MOS/ROM pull-up/pull-down; open collector pull-up; "Wired OR" pull-up; power driver pull-up; high speed parallel pull-up; TTL unused gate pull-up and input pull-down.

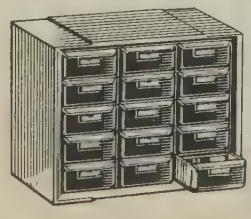
TYPE 760-3
14-PIN 7 RESISTOR

760-3 7-RESISTOR NETWORKS

Stock No.	Mfr's Type	Ohms	EACH 1-49	50-99	100-499	500-Up
745-6000	760-3-68	68	1.25	1.10	.99	.99
745-6015	760-3-150	150	1.25	1.10	.99	.99
745-6020	760-3-220	220	1.25	1.10	.99	.99
745-6025	760-3-330	33u	1.25	1.10	.99	.99
745-6040	760-3-1k	1k	1.25	1.10	.99	.99
745-6050	760-3-2.2k	2.2k	1.25	1.10	.99	.99
745-607L	760-3-10k	10k	1.25	1.10	.99	.99

Applications: "Wired OR" pull-up; power driver pull-up; power gate pull-up; line termination; long-line impedance balancing; LED current limiting; ECL output pull-down resistors.

NEW!



SUBMINIATURE CARBON CONTROLS

- A Total of 58 Controls in Two Mounting Styles, Popular Values

MTC 15-1. Assortment of controls specifically designed for printed circuitry. Two mounting styles: MTC-1 for vertical mounting; MTC-4 for horizontal mounting. Twenty-nine of each style in popular ratings. With cabinet for bench or desk.
854-6001 .....**Each 28.05**

ASSORTED WIREWOUND CONTROLS

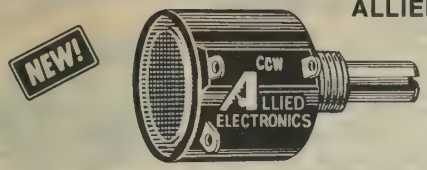
- Five Popular Types of Controls In Assorted Ratings

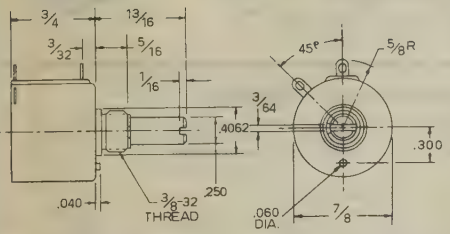
MR 15-1. Includes Type MR-T tab mount, MR-F flange mount, MR-P printed circuit mount in 3 watt ratings. In 1½ watt ratings there are Type MRC-P PC convergence controls. Also 10 MRS1250 shafts. Housed in attractive cabinet.
854-6000 .....**Each 22.00**

Quality, Fast Service – This is Standard Procedure at Allied Electronics

Multi-Turn Potentiometers

ALLIED'S OWN PRECISION-MADE 10-TURN MINIATURE POTENTIOMETERS AT VERY REASONABLE PRICES





Features high-impact plastic case, terminals. Have ¼" stainless steel slotted shaft. Mechanical travel, 3600° (+10°, −0°); electrical angle, 3600° (+10°, −0°). Resis. tol., ±5%. Power rating: 2 watts @ 20°C. End resis.: 0.25% or 1 ohm. Dielectric strength: 1000 V rms. Insulation resistance: 1000 megohms @ 500 VDC. Independent or zero based linearity .25%. Torque, 1.5 oz.-in. maximum. Stop strength, 50 oz.-in. minimum. Operating temperature range, −55°C to 105°C. Vibration, 10G, 55-2000 Hz. Shock, 50G. Glass filled nylon housing, anodized aluminum bushing. Gold plated beryllium copper terminals. Available in a wide range of values to suit varied applications.

RESOLUTION TABLE

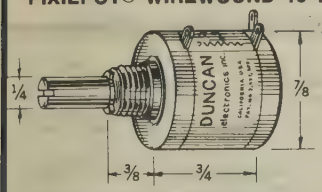
Ohms	Resolution	Ohms	Resolution
100	.055	10k	.017
200	.037	20k	.015
500	.030	25k	.013
1000	.025	50k	.011
2000	.021	100k	.009
2500	.020	200k	.007
5000	.020	....	...

CROSS REFERENCE

Allied	Beckman	Bourns	Spectrol	Amphenol	Clarostat	Duncan
Type 3	7276	3540	534	4201B	735A	3253

Stock No.	Allied Type 3-	Ohms	EACH 1-9	10-24	25-49	50-Up
522-3101	101	100	6.53	5.22	4.05	3.92
522-3201	201	200	6.53	5.22	4.05	3.92
522-3501	501	500	6.53	5.22	4.05	3.92
522-3102	102	1000	6.53	5.22	4.05	3.92
522-3202	252	2500	6.53	5.22	4.05	3.92
522-3502	502	5000	6.53	5.22	4.05	3.92
522-3103	103	10k	6.53	5.22	4.05	3.92
522-3203	203	20k	6.53	5.22	4.05	3.92
522-3204	253	25k	6.53	5.22	4.05	3.92
522-3503	503	50k	6.53	5.22	4.05	3.92
522-3104	104	100k	6.53	5.22	4.05	3.92
522-3205	204	200k	6.53	5.22	4.05	3.92

PIXIEPOT® WIREWOUND 10-TURN POT



- **Precision 10-Turn Potentiometer is Only ⅞" Dia. by ¾" Long**
- **Shaft Life of 500,000 Revolutions**
- **Resolution Comparable to Larger Pots**

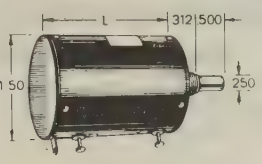
MODEL 3253. Features high impact plastic case for long-term durability. Enclosed interlocking design, welded terminations. Has ¼" stainless steel slotted shaft, anti-rotat. pin. Act. elec. travel, 3600° (+10°, −0°); total mech. travel, 3600° (+15°, −0°). Resis. tol., ±5%. Power rating: 2 watts @ 20°C, 0 @ 85°C. End resis.: 0.25% of total resis. or 0.1 ohm, whichever is greater. Dielectric strength: 1000 V rms. Insulation resistance: 1000 megohms min. @ 500 VDC max. Torque, 1.0 oz.-in. maximum. Stop strength, 50 oz.-in. Temp. range, −25 to +85°C. Vibration, 10G to 2000 Hz. ⅜"-32 bushing mnt. Wt. 0.5 oz.

Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.	Ohms	Stock No.
100	530-4005	1000	530R-4025	10k	530R4040	100k	530R4070
200	530-4010	2000	530-4030	20k	530-4050	...	.....
500	530-4020	5000	530R4035	50k	530R4060	....	.....

EACH (Prices for one resistance value only)

1-9	10-24	25-49	50-Up
7.25	5.80	4.50	4.35

TYPE HD-150 10-TURN LABORATORY/INSTRUMENT POTS



Highly stable, critical adjustment control. Power 5 watts @ 40°C ambient. Operating Temp: −55° to +150°C. Resistance Tol: ±3%. Patented metal-to-metal stop system with mounting bushing. Torque, 2 oz. in max. Phenolic case, 1½" dia. x 2" long. ¼" dia. nickel-plated brass shaft extends ½" beyond ⅜"-32 x ¾" long bushing. Average shipping weight: 4 ounces.

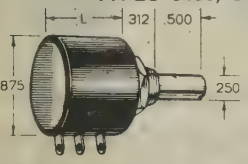
Stock No.	Linearity	Std. Res. Ohms See Table A	EACH 1-9	10-24	25-49	40-Up
822-02RC	±0.25%	1k, 2k, 10k, 200k	36.00	34.00	32.50	31.00
822-01RC	±0.1%	1k, 10k, 50k	36.00	34.00	32.50	31.00

TABLE A — RESISTANCE CODE FOR POTENTIOMETERS ABOVE

To Order: Complete the Stock Number by replacing the designated Resistance Code Letter (RC) with desired Ohms Value shown opposite the RC value in Table at right.

Ohms	RC	Ohms	RC	Ohms	RC
1k	29	10k	41	200k	68
2k	32	50k	53	....	...

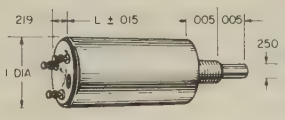
TYPES 8400, 8403 POTENTIOMETERS



Tol., ±5%. ⅞" dia. Temp. range, −55 to +105°C. TC. ±70 ppm/°C. Torque, 1 oz.-in. max. **Type 8400.** 10-turn pot. Pwr. watts 3 @ 70°C ambient. Projects 1⅛" behind panel. Screwdriver adj. slot. Ribbon welded, multi-wire terminals. **Type 8403.** 3-turn pot. Pwr. watts 2@40°C. Projects ⅝" behind panel. Screwdriver adj. slot. Turret-type, molded-in terminals, golded-plated. Wt. 4 oz.

Stock No.	Mfr's Type	Std. Res. Ohms See Table B	EACH 1-9	10-24	25-49	50-Up
822-98RC	8400	500, 1k, 2k, 5k, 10k, 20k, 100k	11.75	9.40	7.84	6.25
822-97RC	8403	500, 1k, 5k, 10k	13.75	11.00	9.19	8.00

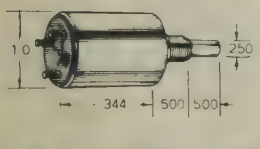
TYPE 7400 MULTI-TURN POTENTIOMETER



Precision wirewound potentiometer is ¾" in diameter. Rotary type. Molded rear terminals save panel space. Wrap-around connectors. Shafts mate with standard counting dials. 100 oz.-inch stop system prevents damage. Tolerance, ±5%. Pwr. watts 3/40°C. Temp. range, −65/+125°C. Coef., ±70 ppm/°C max. Independent linearity, ±0.25%. Turns, 10. Rotation, 3600° (+6°−0°). Meets or exceeds **MIL-R-12934.** Screwdriver slot.

Stock No.	Mfr's Type	Std. Res. Ohms See Table B	EACH 1-9	10-24	25-49	50-Up
822-92RC	7400	1k, 5k, 10k, 20k, 50k, 100k	13.70	10.91	10.17	9.51

TYPE 1000 10-TURN POTENTIOMETER



Metal cased. 1-pc. bushing, front header of nickle-plated brass. Moisture & dust-resistant. Oper. temp. −55 to +125°C. Pwr. watts 3 @ 40°C. Res. tol., ±5-5/6; linearity, ±0.5%. Max. starting and running torque, 2 oz. in. 1" dia. x 1½" long. ¼" dia. shaft extends ½" beyond ⅜"-32 bushing. Bushing is ½" long. Gold-plated terminals. Separate electrical and mechanical sections. Shpg. wt. 4 oz.

Stock No.	Mfr's Type	Std. Res. Ohms See Table B	EACH 1-9	10-24	25-49	50-Up
822-8547	1000	25k	19.21	15.30	14.20	12.40

TYPE 7500 10-TURN POTENTIOMETERS

Metal encased. 1-pc. bushing and front header of nickel-plated brass. Moisture and dust-resistant. Separate electrical and mechanical sections. Gold-plated terminals. Maximum starting and running torque, 2 oz. in. Oper. temp. −55°C to +125°C. 3-watt pwr. rating at 40°C ambient. ¾" dia. x 1¹¹⁄₃₂" long. Res. Tol. ±5%. ¼" dia. shaft extends ½" beyond ⅜-32 x ½" long bushing. Shpg. wt. 4 oz.

Stock No.	Mfr's Type	Std. Res. Ohms See Table B	EACH 1-9	10-24	25-49	50-Up
822-93RC	7500	250, 1k, 10k, 25k	19.21	15.30	14.20	12.40

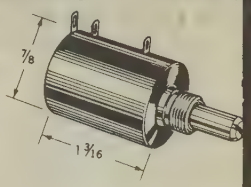
TABLE B—IMPORTANT ORDERING INFORMATION

To Order: Complete the Stock Number shown by placing the designated Resistance code for Ohms Value where RC appears in the Stock Number. Each particular listing shows what ohm values are available.

Value	RC	Value	RC	Value	RC	Value	RC
250	23	2k	32	10k	41	50k	53
500	26	2.5k	35	20k	44	100k	59
1k	29	5k	38	25k	47	....	..

High-Performance Multi-Turn Pots and Precision Dials

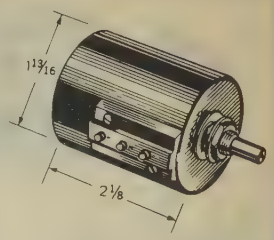
7/8" DIA. 10-TURN 2-W MICROPOT



Series 4101B. High-performance wirewound Micropot has backlash-free wiper drive mechanism. Precious metal wiper and pickup contacts. Resistance element welded directly to gold-plated terminal lugs. Rated 2 watts @ 40°C for 1000 hours. Tol., ±5%. Temp. range, −55° to +125°C. Rotational life, 200,000 revol. Starting torque 1.5 oz. in.; running torque, 1.0 oz. in. **Values: 1000, 2000, 5000, 10k, 20k, 50k, 100k ohms.** Av. shpg. wt. 3 oz. **See Table A for ordering information.**

714-90RC. 1-9 ..... Ea. 11.23 **10-24** ..... Ea. 8.98
25-49 ..... Ea. 5.63 **50-Up** ..... Ea. 5.39
714-90RC. 50k, 100k. **1-9** ..... Ea. 11.78
10-24 ..... Ea. 9.42 **25-49** ..... Ea. 5.89 **50-Up** ..... Ea. 5.65

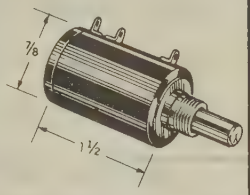
1 13/16" DIA. 10-TURN 5-WATT MICROPOT



Series 2201B. Precision, extra-long life pot has wirewound element wrapped around center core under maximum tension for absolute wiper-to-element concentricity. Dual brass bearing shaft support. Anti-backlash carrier. Rated 5 watts @ 40°C. Tol., ±3%, except *, ±5%. Temp. range, −55 to +105°C. Rotational life, 5,000,000 revol. **Values: *25, 500, 1000, 5000, 10k, 20k.** Av. shpg. wt. 5 oz. **See Table A for complete ordering information.**

714-47RC. 1-9 ..... Ea. 21.93 **10-24** .... Ea. 17.90
25-49 ..... Ea. 17.00 **50-Up** .... Ea. 16.41

7/8" DIA. 10-TURN 3-W MICROPOT



Series 2151B. Wirewound resistance element inside high temp. molded phenolic case. Wiper drive mechanism eliminates backlash. Terminations welded to gold-plated terminal lugs. 1/4" common shaft assures unit-to-unit indexing accuracy. Rated 3 watts @ 40°C. Tolerance, ±3%. Temperature range, −55 to +105°C. Rotational life, 2,000,000 revolutions. **Values: 1000, 5000, 10k, 100k.** Wt. 5 oz. **See Table A for complete ordering information.**

714-45RC. 1-9 ..... Ea. 16.98 **10-24** .... Ea. 14.70
25-49 ..... Ea. 13.20 **50-Up** .... Ea. 12.71

ORDERING INFORMATION

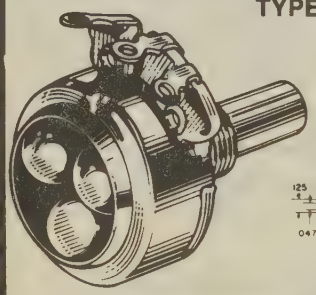
To order, replace the Allied Stock Number prefix RC with appropriate numeric code shown in parenthesis in Table A at right. For example: Series 4101B at 1000 ohms = Stock No. 714-90(35). Only those values shown in series listings are available.

TABLE A

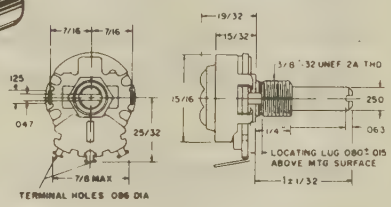
Value	RC	Value	RC	Value	RC
25	(13)	2000	(38)	20k	(50)
200	(25)	5000	(40)	50k	(60)
500	(30)	10k	(45)	100k	(65)
1000	(35)				

6

TYPE VA-45 1/2-WATT CARBON POT



- **Rated ½ Watt (up to 10k Ohms) at 55°C**
- **Independent Linearity, ±10%**
- **Resistance Tolerance, ±10%**



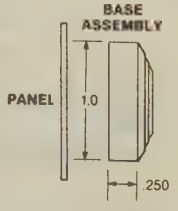
For low power and sensitive setability applications. Replaces backlash units. For CRT display position, gain, null, bushing-mounted trimmer-type and DC balance controls. Wide range of industrial, military and consumer electronic applications. Turn ratio 10¼ turns. **VAC:** Bushing to term., 1000 VAC at high pot test for 1 min., 500 VAC operating maximum; 500 VAC across end terminals. Approximately 4 oz. **See pricing table below.**

Stock No.	Type	Ohms	Stock No.	Type	Ohms	Stock No.	Type	Ohms
540-2015	VA-45-100	100	540R2040	VA-45-5000	5000	. . . . .	. . . . .	. . . .
. . . . .	. . . . .	. . . .	540-2045	VA-45-10k	10k	540-2075	VA-45-500k	500k
540-2025	VA-45-500	500	. . . . .	. . . . .	. . . .	540R2080	VA-45-1M	1 Meg
540R2030	VA-45-1000	1000	540-2060	VA-45-50k	50k	. . . . .	. . . . .	. . . . .
. . . . .	. . . . .	. . . .	540R2065	VA-45-100k	100k	. . . . .	. . . . .	. . . . .

Mfr's Type	Description	Resistance (See Tables Above)
VA-45	Carbon	100 ohms to 1 megohm

EACH			
1-9	10-24	25-49	50-Up
4.18	3.50	3.15	2.80

1" DIAMETER 10-TURN ROTARY COUNTING DIALS

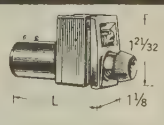


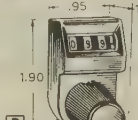
For precision potentiometers. Dial backlash is eliminated by locking knob to shaft and non-rotating base to panel. Shaft extends from panel 0.60" min. to 0.80" max. (.725 optimal). Max. bushing extends from panel 0.296". Needs no special panel holes for mounting. Dial body diameter, 1" maximum. Life tested for ¼ million cycles without appreciable wear. Bushing threads are 3/8-32 NEF2 for ¼" shafts. Average shipping weight: 3 ounces.

10 TURN DIALS

Stock No.	Mfr's Type	Lock Mech.	Finish	Shaft Dia. In.	EACH 1-4	5-9	10-24	25-Up
822-0411	RD-411	No	Black	¼	14.37	11.50	7.70	7.20
822-0412	RD-412	Yes	Black	¼	15.45	12.36	8.25	7.62
822-0461	RD-461	No	Clear	¼	14.37	11.50	7.70	7.20
822-0462	RD-462	Yes	Clear	¼	15.45	12.36	8.25	7.62

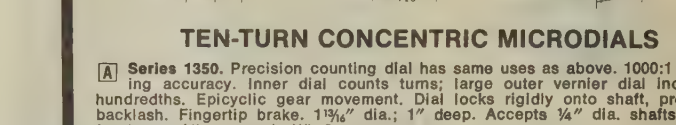
DIGITAL-READING MICRODIALS





Series 3100 & DFD-IN. 10-turn microdial with direct reading miniature digital readout to 999. Accuracy is 1 part in 1000. Control knob mounted directly to shaft to eliminate backlash. Mounts in 1 x 1½" hole. Fig. A has a brush aluminum finish. Fig. B has magnifying lens. 1 21/32 x 1 1/16" (HxW). Wt. 5 oz.

Stock No.	Mfr's. Type	Shaft Dia. In.	Light	Fig.	EACH 1-4	5-9	10-24	25-Up
714-7341	3141	¼	None	A	17.13	13.70	12.83	12.21
714-7343	DFD-IN	¼	None	B	15.73	12.59	12.53	11.78



TEN-TURN CONCENTRIC MICRODIALS

A Series 1350. Precision counting dial has same uses as above. 1000:1 Indexing accuracy. Inner dial counts turns; large outer vernier dial indicates hundredths. Epicyclic gear movement. Dial locks rigidly onto shaft, prevents backlash. Fingertip brake. 1 13/16" dia.; 1" deep. Accepts ¼" dia. shafts. With hardware. Allen wrench. Wt. 2 oz.

714R4350. 1-4 ..... Each 10.19 **5-9** ..... Each 9.15
10-24 ..... Each 8.15 **25-Up** ..... Each 7.62

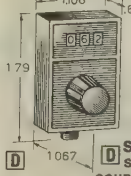
MINIATURE CONCENTRIC MICRODIAL

B Series 1370. Only 7/8" diameter. Indicates angular position of potentiometers and multi-turn devices of 10 turns or less with 1000:1 indexing accuracy. Vernier dial mounts directly to shaft, eliminating backlash. Fingertip disk brake. 15/16" deep. For ¼" shaft. 2 oz.

714R4370. 1-4 .. Ea. 12.30 **5-9** .. Ea. 11.17 **10-24** .. Ea. 10.30 **25-Up** . Ea. 9.00

DIRECT-READING MICRODIALS

C Series 1300. For rotary devices. Easy-to-read numerals. 100:1 indexing accuracy. Mount directly to shaft, eliminate backlash. Exceeds MIL-E-5272C. 3-digit types are 1 21/32 x 1 13/16" dia.; 4-digit, 1 5/8 x 2 1/16" dia. For 1/8" to 5/16" dia. shafts, panels to 3/16" thick. 1309 with fingertip brake. 4 oz.



Stock No.	Mfr's. Type	Digits	Turns	EACH 1-4	5-9	10-24	25-Up
714R4309	1309	3	10	20.25	16.38	15.54	14.75
714-4310	1310	3	10	19.05	15.22	14.43	13.70
714-4304	1304	4	100	26.30	21.00	19.95	18.90
714-4314	1314	4	100	28.25	22.57	21.42	20.31

DIGITAL MICRODIALS

D Series 1380. Ten turns. Zinc housing. Indexing accuracy, 1:1000. One screw mounts dial to potentiometer shaft. 1 7/64"W x 1 51/64"H. 3-digit readout counts to 999. 2 oz.

Stock No.	Mfr's Type	Shaft Dia. In.	Light	Fig.	EACH 1-4	5-9	10-24	25-Up
714-4400	1381	¼	None	D	16.43	13.14	12.30	11.71

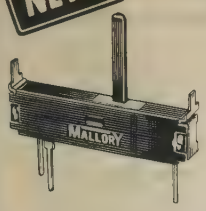
Specify Stock No. and Manufacturer's Type When Ordering

Slide-Action and Plunger-Action Potentiometers

PRECISION POTS

NEW!

TYPE MS "MALLOSLIDE" SLIDING POTENTIOMETERS



The Type MS Malloslide control is designed primarily for use in TV sets as a volume, tone and/or linearity adjustment control. It can be used in other applications such as radio, stereo, etc. These controls are tab mount with 4 different configurations. The case is made of a glass-filled nylon structure with a nylon shaft. Wattage ratings vary with resistance and taper, as indicated in the electrical specifications below.

SPECIFICATIONS. Resistance Range: 600 to 120K ohms. Taper: Linear, audio, and reverse audio. Tolerance: ±30%. Wattage: Linear Taper — 100-250K, 0.5W; 250K-1 meg, 0.3W; 1 meg-3 meg, 0.2W; 3 meg-10 meg, 0.1W. Audio & Reverse Audio Taper — 200-2500, 0.5W; 2500-250K, 0.3W; 250K-1 meg, 0.2W; 1 meg-5 meg, 0.1W. Initial Noise Level: Under 0 dB. Travel Length: 1¼". Life Test: 10,000 cycles wear test less than 8% change. Torque: 2-10 oz.

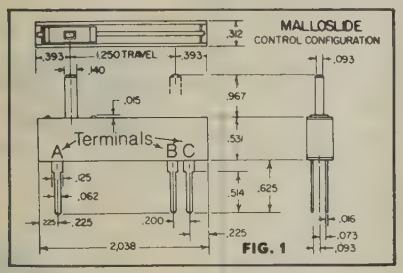
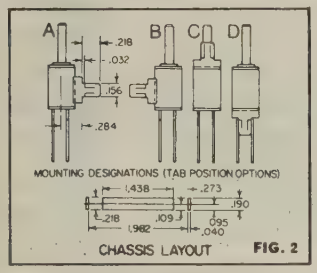


FIG. 1



CHASSIS LAYOUT FIG. 2

AUDIO TAPER

Widely used on both stereo and television receivers, the MS Series is dimensioned to premit direct replacement in many American-manufactured TV sets. Maximum operating voltage is up to 750 VDC across element terminals. Shelf life is indefinite, with no measurable change.

Stock No.	Type No.	Mtg. (Fig. 2)	Ohms	EACH 1-24	25-49	50-99	100-Up
854-4200	MSA62A	A	600	2.05	1.26	1.12	1.04
854-4220	MSB252A	B	2500	2.05	1.26	1.12	1.04
854-4240	MSB53A	B	5000	2.05	1.26	1.12	1.04
854-4260	MSC63A	C	6000	2.05	1.26	1.12	1.04
854-4280	MSC253A	C	25K	2.05	1.26	1.12	1.04

LINEAR TAPER

Maximum operating voltage up to 750 VDC across element terminals. Even with extended shelf life there is no measurable change in values.

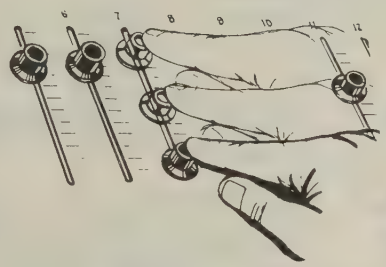
Stock No.	Type No.	Mtg. (Fig. 2)	Ohms	EACH 1-24	25-49	50-99	100-Up
854-4100	MSC62L	C	600	1.94	1.20	1.07	.98
854-4120	MSC13L	C	1000	1.94	1.20	1.07	.98
854-4140	MSC14L	C	10K	1.94	1.20	1.07	.98
854-4160	MSD253L	D	25K	1.94	1.20	1.07	.98
854-4180	MSC124L	C	120K	1.94	1.20	1.07	.98

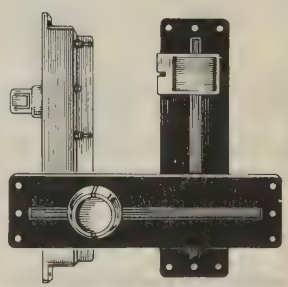
Knob. For audio and linear sliding pots.
854-4295. 1-24 ..... Each .24 25-Up ..... Each .14

MODEL 221 SLIDE-ACTUATED POTS

Stepless, continuously variable thick-film resistive devices. They exhibit infinite resolution charactersitics and all curves are essentially smooth and continuous. Active elements are completely encased in plated die-cast housings with overlapping anti-friction dust seal extending the full length of slider travel. Back and case are roll-swaged together to eliminate dust intrusion. Resistive element is Resolon®, a conductive plastic with a 7-year record of failure-free performance in over 100,000 precision potentiometers. Internal components are solvent resistant and require no cleaning throughout the potentiometer's life, Switches are lever actuated and externally mounted.

SPECIFICATIONS: Life: Less than 10% total resistance change with an excess of 5M traverses; 3-year guarantee. **Noise:** less than 400 ohms equivalent noise resistance after 5 traverses. **End Voltage:** less than .01% on all units, min. of 80 dB attenuation. **Resolution:** infinite. **Function Travel:** 2½". **Mechanical Travel:** 2¾". **Tracking:** within 2 dB. **Conformity:** ±3 dB, most functions. **Terminals:** gold-Plated. **Stop Strength:** withstands 20 lbs. either stop. **Dielectric Withstanding Voltage:** 500 V rms. **Sealing:** self-closing dust seal of anti-friction material. **Elements:** single and dual types identical cases. **Size:** 4½ x 1¼ x ¾". **(Optional Knob:** ¼" I.D. mtg. hole.) 4 oz.





SERIES 221SA AUDIO SLIDE POTS

Broadcasting and recording industry depend on it for stereo and monophonic applications. Its main feature: precise single resistive element with audio curve function where 10% of output voltage is obtained at 50% of travel.

Ohms	Stock No.	Type No.	EACH* 1-9	10-24	25-49	50-up
600	530-2520	221SA-600	15.22	12.11	11.41	10.72
5K	530-2535	221SA-5K	15.22	12.11	11.41	10.72
10K	530-2540	221SA-10K	15.22	12.11	11.41	10.72

*Prices for one resistance value only.

SERIES 221SL LINEAR SLIDE POTS

Single (SL) element type sliding pot widely used in broadcasting and recording for tone control. Also, ideal when used with SCR's for stage lighting; may also be used for heating or motor speed control. Linear elements.

Ohms	Stock No.	Type No.	EACH* 1-9	10-24	25-49	50-up
1K	530R2925	221SL-1K	14.08	11.20	10.56	9.92
5K	530-2935	221SL-5K	14.08	11.20	10.56	9.92
10K	530-2940	221SL-10K	14.08	11.20	10.56	9.92
100K	530-2970	221SL-100K	14.08	11.20	10.56	9.92

*Prices for one resistance value only.

EXPLANATION OF PART NUMBERS

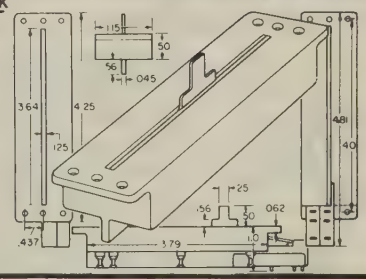
221 S A 10K

Model Number: 221— Has. .250" slider blade, accepts most ¼" I.D. knobs

No. of Selections: S — Single

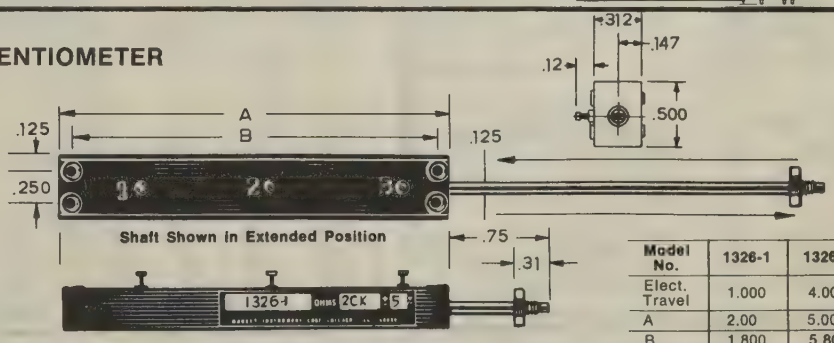
Function: A—Audio L—Linear

Resistance Value: Ohms (600), Kilohms (1k-100k)



TYPE 1326 LINEAR MOTION POTENTIOMETER

- **Compact, High-Quality at Low Cost**
- **Low Shaft Frictional Force**
- **Total Resistance Tolerance ±5%**
- **Temp. Range: −55°C to 125°C**



Model No.	1326-1	1326-4
Elect. Travel	1.000	4.000
A	2.00	5.00
B	1.800	5.800

The 1326 linear motion wirewound potentiometer enjoys a unique position. It combines the best electrical characteristics in the smallest size at the lowest cost. An asbestos-epoxy terminal strip, riveted to an anodized aluminum housing, insures rigidity as well as terminal solidity during production soldering. A solid precious metal contact engaging the precision wirewound mandrel produces exceptional linear and resolution characteristics. For applications where forces are limited, such as in instrumentation, the 1326 is ideal because of its low shaft frictional force as well as small size and light weight.

MODEL 1326-1 ONE-WATT POTENTIOMETER

Stock No.	Ohms.	Stock No.	Ohms	EACH 1-9	10-24	25-99	100-up
606-1025	500	606-1040	5K	45.25	36.20	28.05	23.71
606-1030	1K	606-1045	10K	45.25	36.20	28.05	23.71

MODEL 1326-4 FOUR-WATT POTENTIOMETER

Stock No.	Ohms	Stock No.	Ohms	EACH 1-9	10-24	25-99	100-up
606-2025	1K	606-2045	20K	49.25	39.40	30.14	25.60
606-2040	10K	.....	...	49.25	39.40	30.14	25.60

ELECTRICAL AND MECHANICAL CHARACTERISTICS

	Model 1326-1	Model 1326-4
Total Resistance Tolerance	±5%	±5%
Theoretical Resolution (Inch)	.006 to .001	.006 to .001
Independent Linearity	±1.2% to ±.2%	±.3% to ±.1%
Theoretical Electrical Travel (Inches)	1.000	4.00
Theoretical Electrical Travel Tolerance (Inches)	±.010	±.010
Total Mechanical Travel (Inches)	1.10	4.10
Temperature Coefficient (PPM/°C)	50	50
Operating Temperature Range	−55° to 125°C	−55° to 125°C
Power Rating (Watts at 40°C)	1	4
Dielectric Strength (Volts, RMS for 60 Sec.)	750	750
Life Expectancy (Cycles at 60 In./Min.)	500,000	500,000
Shaft Frictional Force (Ounces)	4	4
Weight (Ounces)	3	6
Bearings	Nylon	Nylon

Potentiometers, Rheostats, Dial Plates and Knobs

VITREOUS-ENAMELED RHEOSTATS

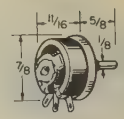
- **Choose from 12½ to 300 Watts in a Wide Range of Resistances**
- **Highly Reliable and Economical**

All-porcelain vitreous-enameled, silicon-ceramic for smooth action and electrical control. Cannot smoke, char, shrink or shift. Metal-graphite contact brushes, varied to fit current and resistance. Ratings at full setting. U.L. Recognized. Type H mounts on panels up to ¼" thick; ¼" shaft; depth behind panel (and dia.), 1⅜" (1⁹/₁₆"). *Less knobs; see knobs, dial plates and coupling plates below.* Shpg. wt. 8 oz.

12½ WATT — TYPE R12½

UL approved. Rheostats have three terminals for use as a potentiometer. **Resistance Tolerance:** ±10%. **Running Torque:** 1 to 6 inch oz. **Rotation:** 300°±5%. **Mounting for Panels:** up to ⅛". **Standard Resistance:** 1-5000 ohms. **Shpg. wt.:** 2½ oz.

Stock No.	Mfr's. Type	Ohms	Price Code
875-4003	602	3	A
875-4008	607	25	B
875-4010	609	50	B
875-4012	611	100	B
875-4017	616	500	B
875-4019	618	1000	A
875-4020	619	1500	A
875-4023	622	5000	C

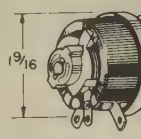


TYPE R12½

25 WATT — TYPE R25

Wiper tracks on this rheostat are buffed and polished to assure smooth rotation and uniform wiper contact. A high strength ceramic hub is used to insulate the shaft and bushing from live parts. The wiper design assures minimum backlash. A vitreous enamel bonds core and base together for uniform heat dissipation and structural integrity. Cores on the larger sizes are enameled prior to winding to increase core strength and improve bond between wire and core. UL approved. **Resistance Tolerance:** ±10%. **Running Torque:** .25 to .5 inch-pound. **Rotation:** 300°±5%. **Mounting for Panels:** up to ¼". **Standard Resistance:** 1-5000 ohms. **Shpg. wt.:** ½ lb.

Stock No.	Mfr's. Type	Ohms	Price Code
875-4025	100	1	A
875-4027	102	3	A
875-4030	105	10	A
875-4031	106	15	B
875-4032	107	25	B
875-4034	109	50	B
875-4035	110	75	B
875-4036	111	100	B
875-4037	112	125	B
875-4038	113	175	B
875-4039	114	250	B
875-4040	115	350	B
875-4041	116	500	B
875-4042	117	750	B
875-4043	118	1000	A
875-4044	119	1500	A
875-4045	120	2500	A
875-4047	122	5000	C

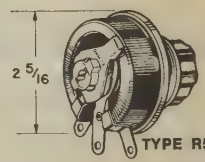


TYPE R25

50 WATT — TYPE R50

UL approved rheostats have vitreous enamel bonded core and base. Buffed and polished wiper tracks assure smooth rotation and uniform wiper contact. Rheostats have three terminals to allow use as potentiometers. **Resistance Tolerance:** ±10%. **Running Torque:** .25 to 2 inch-pound. **Rotation:** 300°±5%. **Mounting for Panels:** up to ¼". **Standard Resistance:** 1-10,000 ohms. **Shpg. wt.:** ¾ lb.

Stock No.	Mfr's. Type	Ohms	Price Code
875-4053	205	8	E
875-4054	206	12	E
875-4057	209	35	E
875-4058	210	50	E
875-4062	214	225	E
875-4063	215	300	E
875-4064	216	500	E
875-4066	218	1000	F
875-4068	220	2500	F
875-4070	222	5000	H
875-4072	224	10k	H

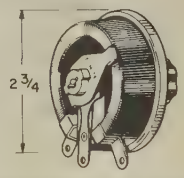


TYPE R50

100 WATT — TYPE R100

UL approved. Has ¼" dia. shaft and 3⅛" dia. body. Furnished with three terminals for use as potentiometer. **Resistance Tolerance:** ±10%. **Running Torque:** .5 to 2 inch-pound. **Rotation:** 300°±5%. **Mounting for Panels:** up to ¼". **Standard Resistance:** 1-10,000 ohms. **Shpg. wt.:** 1 lb.

Stock No.	Mfr's. Type	Ohms	Price Code
875-4074	401	1	J
875-4079	406	10	J
875-4082	409	50	K
875-4084	411	100	K
875-4087	415	500	K
875-4091	421	5000	L



TYPE R100

150 WATT — TYPE R150

UL approved. Has ¼" dia. shaft and 4" dia. body. Furnished with three terminals to allow use as potentiometer. **Resistance Tolerance:** ±10%. **Running Torque:** .5 to 3 inch-pound. **Rotation:** 300°±5%. **Mounting for Panels:** up to ¼" or by means of F.H. screws. **Standard Resistance:** 1-10,000 ohms. **Shipping wt.:** 1½ lbs.

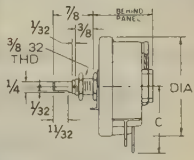
Stock No.	Mfr's. Type	Ohms	Price Code
875-4095	504	5	M
875-4098	507	15	M
875-4101	510	50	N
875-4102	511	75	N
875-4103	512	100	N
875-4104	513	150	N
875-4106	515	250	N
875-4110	519	1250	M
875-4111	525	10k	P

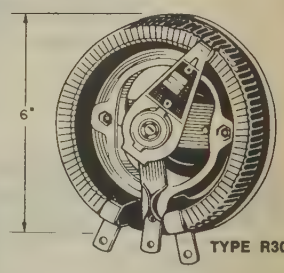
TYPE R150

300 WATT — TYPE R300

6" dia. ⅜" shaft dia. Resis., ±10%. 2.38" behind panel; 4⅜" long. Torque, 2.5 to 5.0 lb.-in. Standard mounting — for panels up to 1¼" thick. Use two ¼-20 by 1½" flat head screws. Rotation, 320°±5°. Standard knob, No. 5105. Shpg. wt. 2½ lbs.

Stock No.	Mfr's. Type	Ohms	Price Code
875-4112	700	1	R
875-4114	702	3	R
875-4115	704	5	R
875-4117	706	10	R
875-4120	709	50	R
875-4128	719	1500	R

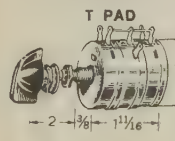




TYPE R300

POTENTIOMETERS AND ATTENUATORS

4-W CONSTANT-LOAD ATTENUATORS



Widely used to control the level of low-impedance audio circuits. Rated 4 W contin. DC; 15 W peak audio. Have 2" shafts. ⅜" dia. bushing. Bar knob, 0-10 dial plate. 7 oz.

T-Pad Attenuators. Present a constant source-impedance as well as constant load. Size, 1⅝" dia. x 1 11/16".

Ohms	Stock No.	Type
8	854-6806	T8
500	854-6815	T500
600	854-6820	T600

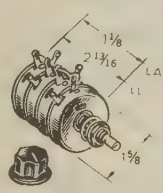
1-9 ..... Each 6.20 **10-24 ..... Each 4.96**
25-49 ..... Each 4.34 **50-Up ..... Each 3.85**

L-Pad Attenuators. Present a constant load-impedance at all control settings. Size, 1⅝" dia. x 1⅛" long.

8	854-5208	L8

1-9 ..... Each 4.62 **10-24 ..... Each 3.71**
25-49 ..... Each 2.81 **50-Up ..... Each 2.60**

STEREO AND MONOPHONIC "L" PADS



Type "LL" Pads. For low-impedance stereo-audio. Rated 4 watts DC, 15 watts peak. Have 2 "L" pads on common shaft for adjusting two channels. Size, 1⅝ x2 13/16". Wt. 7 oz.

Type "LA" Pads. For level control in monophonic equipment. 4 watts DC, 15 peak. Maintains constant impedance. With 1" bushing, 2 nuts, lock washers. 1⅝x1⅛". 7 oz.

Stock No.	Mfr's. Type	Imp. Ohms	EACH 1-9	10-24	25-49	50-Up
854-5290	LL8	8	9.72	7.77	6.03	5.66
854-5280	L8A	8	4.84	3.87	2.93	2.74

CONTROL MOUNTING BRACKETS

Mounting brackets with adjustable mounting centers available in two sizes: 2½" or 1¾" centers.

Stock No.	Type	Description	EACH
854-6410	RB249	Mtg. bracket, mtg. ctrs. 2½"	.10
854-6400	RB248	Mtg. bracket, mtg. ctrs. 1¾"	.10

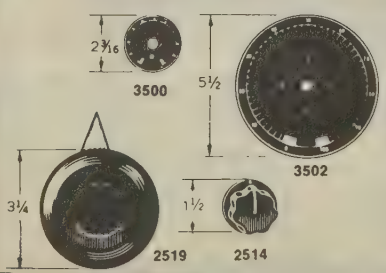
RHEOSTAT CROSS REFERENCE

Memcor	Ohmite	Mallory
R12½	Type E	....
R25	Type H	25K
R50	Type J	50K
R100	Type K	100K
R150	Type L	150K
R300	Type N	300K

PRICE LOCATOR

Price Code	EACH 1-4	5-9	10-24	25-Up	Price Code	EACH 1-4	5-9	10-24	25-Up
A	6.33	5.38	4.21	3.47	J	10.68	8.50	6.61	6.27
B	5.71	4.84	3.78	3.11	K	9.75	7.76	6.03	5.69
C	6.79	5.78	4.74	3.73	L	11.95	9.51	7.40	7.21
D	7.78	6.18	4.81	4.35	M	13.72	10.93	8.50	8.27
E	6.93	5.51	4.28	3.63	N	13.63	10.85	8.43	8.19
F	7.25	5.77	4.49	4.12	P	21.41	18.20	14.15	12.80
H	7.63	6.07	4.72	4.35	R	20.80	16.89	....	....

DIAL PLATES AND KNOB FOR ABOVE RHEOSTATS



TYPE 3500 DIAL PLATE. Especially designed for Types R25, R50, R100 and R150 rheostats. Has 2 3/16" diam. Handsomely finished with bright figures and lines on etched black background. Features a 0 to 100 scale. Shpg. wt. 2 oz.
875-8030. 1-9 .... Ea. .50 10-49 ... Ea. .33
50-Up ..... Ea. .28

TYPE 3502 DIAL PLATE. For Type R300 rheostats. Has 5½" diam.; 0 to 100 scale. Shpg. wt. 2 oz.
875-8031. 1-9 ... Ea. 1.22 10-49 ... Ea. .81
50-Up ..... Ea. .69

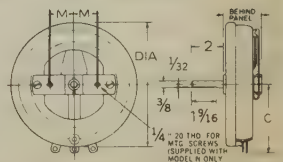
TYPE 2519 HANDWHEEL. With pointer. For Type R300. 3⅜" diameter. Wt. 2 oz.
875-8050. 1-9 ... Ea. 2.40 10-49 .. Ea. 1.60
50-Up ..... Ea. 1.36

TYPE 2514 KNOB. 1½" finger-grip type for Types R25, R50, R100 and R150. Wt. 2 oz
875-8060. 1-9 .... Ea. .50 10-49 .... Ea. .33
50-Up ..... Ea. .28

DIAL PLATE AND KNOB FOR TYPE R12½ RHEOSTAT

TYPE 3501 DIAL PLATE. 1⅜" dia. Black background. Wt. 1 oz.
875-8035. 1-9 .... Ea. .50 10-49 .... Ea. .33
50-Up ..... Ea. .28

TYPE 2400 KNOB. ¾" finger-grip. Black. Wt. 1 oz.
875-8061. 1-9 .... Ea. .55 10-49 .... Ea. .33
50-Up ..... Ea. .28



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Allied® High-Reliability Ceramic Disc Capacitors

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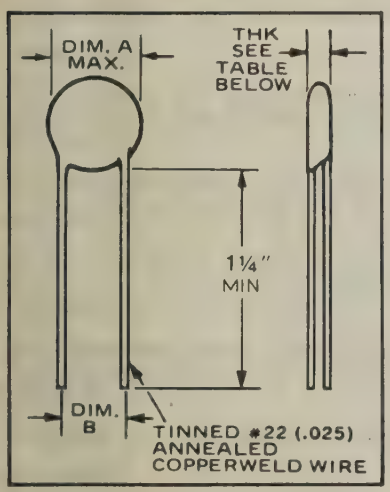
ALLIED CERAMIC DISC CAPACITORS

Low cost, smallest size 1000 WVDC general application ceramic capacitors available.

Tiny, tough and dependable in every application. Designed to the minimum size obtainable. Higher voltage ratings provide an extra reserve for resistance to surges and temporary overloads. Phenolic coating and high temperature wax impregnation assure superior moisture resistance and physical strength. Excellent in bypass and coupling applications in IF and RF circuits. In the Cross-Reference Guide below (*)refers to ±20% tolerance; (†)refers to 500 VDCW, −20% tolerance; (‡)refers to 500VDCW, +80−20% tolerance. G = Guaranteed Minimum Value.

SPECIFICATIONS

Operating Temperature Range: −55°C to +125°C. **Characteristic:** Z5u. **Dissipation Factor:** 2% maximum at 1 kHz. **Flash Test Voltage:** 1800 VDC for 1000 WVDC units. **Working Voltage:** 1000 WVDC except 30,000 pF and up, 500 WVDC. **Tolerance:** ±10% except 10,000 to 30,000 pF, ±20%; 40,000 and 50,000 pF, +80%, −20%.



SIZE CODE

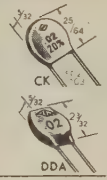
Code	Dim. A.	Dim. B.	Thk
A	.290"	.250"	.156"
B	.385"	.250"	.156"
C	.590"	.375"	.156"
D	.690"	.375"	.156"
E	.900"	.375"	.156"
F	.875"	.375"	.250"

CROSS-REFERENCE GUIDE OF ALLIED TYPES TO OTHER MANUFACTURERS

Stock No.	Allied Type	Capacitance pF	Size Code	Equivalent Types			EACH			
				Sprague 5GA—	Centralab DD—	Mallory GP—	1-24	25-99	100-999	1000-Up
710-1000	CCD-050	5	A	V50	050	550	.15	.13	.054	.036
710R1001	CCD-100	10	A	Q10	100	410	.15	.13	.054	.036
710-1006	CCD-150	15	A	Q15	150	415	.15	.13	.054	.036
710-1008	CCD-180	18	A	Q18	180	418	.15	.13	.054	.036
710-1010	CCD-200	20	A	Q20	200	420	.15	.13	.054	.036
710-1012	CCD-220	22	A	Q22	220	422	.15	.13	.054	.036
710-1014	CCD-250	25	A	Q25	250	425	.15	.13	.054	.036
710-1016	CCD-270	27	A	Q27	270	427	.15	.13	.054	.036
710-1017	CCD-300	30	A	Q30	300	430	.15	.13	.054	.036
710-1018	CCD-330	33	A	Q33	330	433	.15	.13	.054	.036
710-1019	CCD-390	39	A	Q39	390	439	.15	.13	.054	.036
710-1020	CCD-470	47	A	Q47	470	447	.15	.13	.054	.036
710-1021	CCD-500	50	A	Q50	500	450	.15	.13	.054	.036
710-1022	CCD-560	56	A	Q56	560	456	.15	.13	.054	.036
710-1024	CCD-680	68	A	Q68	680	468	.15	.13	.054	.036
710-1026	CCD-820	82	A	Q82	820	482	.15	.13	.054	.036
710R1035	CCD-101	100	A	T10	101	310	.15	.13	.054	.036
710-1036	CCD-121	120	A	T12	121	312	.15	.13	.054	.036
710R1037	CCD-151	150	A	T15	151	315	.15	.13	.054	.036
710-1038	CCD-181	180	A	T18	181	318	.15	.13	.054	.036
710-1039	CCD-201	200	A	T20	201	320	.15	.13	.054	.036
710-1040	CCD-221	220	A	T22	221	322	.15	.13	.054	.036
710-1041	CCD-251	250	A	T25	251	325	.15	.13	.054	.036
710-1042	CCD-271	270	A	T27	271	327	.15	.13	.054	.036
710-1043	CCD-301	300	A	T30	301	330	.15	.13	.054	.036
710-1044	CCD-331	330	A	T33	331	333	.15	.13	.054	.036
710-1045	CCD-391	390	A	T39	391	339	.15	.13	.054	.036
710R1056	CCD-471	470	A	T47	471	347	.15	.13	.054	.036
710R1066	CCD-501	500	A	T50	501	350	.15	.13	.054	.036
710-1067	CCD-561	560	A	T56	561	356	.15	.13	.054	.036
710-1068	CCD-681	680	A	T68	681	368	.15	.13	.054	.036
710-1069	CCD-751	750	A	T75	751	375	.15	.13	.054	.036
710-1080	CCD-821	820	A	T82	821	382	.15	.13	.054	.036
710R1090	CCD-102	1,000	B	D10	102	210	.15	.13	.054	.036
710R1092	CCD-152	1,500	B	D15	152	215	.15	.13	.054	.036
710R1093	CCD-202G	2,000	B	D20	202	220	.18	.15	.095	.075
710-1094	CCD-222G	2,200	B	D22	222	222	.18	.15	.095	.075
710-1097	CCD-302G	3,000	B	D30	302	230	.18	.15	.095	.075
710-1099	CCD-392G	3,900	C	D39	392	239	.19	.16	.115	.08
710-1101	CCD-472	4,700	C	D47	472	247	.19	.16	.115	.08
710R1102	CCD-502	5,000	C	D50	502	250	.19	.16	.115	.08
710-1104	CCD-682G	6,800	C	D68	682	268	.19	.16	.115	.08
710R1116	CCD-103	10,000*	D	S10	103	110	.21	.17	.12	.09
710-1126	CCD-153	15,000*	D	S15	153	115	.21	.17	.12	.09
710R1136	CCD-203	20,000*	D	S20	203	120	.26	.22	.169	.099
710-1146	CCD-303	30,000†	E	...	303	130	.26	.22	.169	.099
710R1166	CCD-503	50,000‡	F	S50	503	150	.43	.36	.21	.16

Disc Capacitors and Kits

LOW-VOLTAGE CERAMIC DISC CAPACITORS



Working voltage is 30 VDC to 75 VDC. Tolerance of type DDA is −30% to +80%. Tolerance of type CK is −20% to +80%. Size: Type DDA: .718" diameter x .156" thick; Type CK-502 and CK-103: 25/64" diameter x 5/32" thick; Type CK-203: 19/32" diameter x 5/32" thick; Type CK-503: 11/16" diameter x 5/32" thick; Type CK-104: 23/32" diameter x 11/64" thick. Shpg. wt. 2 oz.

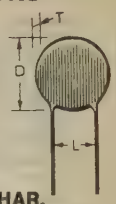
Stock No.	Mfr's Type	uF	WV DC	EACH Pkgs. of 100 1-99	100-199	200-499	500-999
748-0385	CK-502	.005	50	.08	.06	.05	.045
748R0365	CK-103	.01	50	.10	.08	.07	.057
748-0373	CK-203	.02	50	.17	.14	.11	.096
748-0389	CK-503	.05	50	.21	.17	.14	.118
748R0369	CK-104	.1	50	.44	.35	.29	.25
748-0753	DDA-104	.1	75	.44	.35	.29	.25

UK MINIATURE DISC CAPACITORS

Dissipation factor at 1 kHz, 3-10%. Tolerance: 10 and 20 WVDC, −20% to +80. 25 WVDC ±20% 5/32" thick; 7/32" to 59/64" diameter. All types listed have No. 22 leads. 1 oz.

Stock No.	Mfr's Type	uF	WV DC	Size In. Max. Dia. x Max. Thick.	EACH 1-99	100-199	200-499	500-Up
748R6047	UK10-503	.05	10	.290x.156	.13	.10	.08	.07
748R6035	UK10-104	.1	10	.405x.156	.15	.12	.097	.082
748-6039	UK10-204	.2	10	.590x.156	.19	.15	.13	.11
748-6043	UK10-474	.47	10	.820x.156	.35	.28	.23	.20
748-6080	UK20-104	.1	20	.590x.156	.17	.14	.12	.10
748R6110	UK25-103	.01	25	.290x.156	.12	.096	.08	.068
748-6122	UK25-503	.05	25	.405x.156	.15	.12	.10	.08
748R6111	UK25-104	.1	25	.590x.156	.19	.15	.13	.11
748R-6165	UK50-103	.01	50	.290x.156	.15	.12	.10	.08

MINIATURE DISC CERAMIC CAPACITORS



Type TCD. Low voltage miniature disc ceramic capacitors designed for low voltage transistor circuitry. Applications requiring high capacitance and low power factors for voltages from 3 to 50 volts can use these types. All units are coated with a rugged "Durez" coating and are available in both ±20%, +80%-20% tolerances. **Type TCP.** Miniature discs are ideally suited for all applications where size is a factor such as transistorized radios and industrial applications having critical space requirements and 100 WVDC design. Av. shpg. wt. 2 oz. each.

50 VOLT (150 VOLT TEST) ±20% TOL.—Z5U CHAR.

Stock No.	Mfr's Type	μF	Size (Dia. x Thk. x Lead Spacing) Inches	EACH 1-24	25-99	100-999	1000-Up
710-1410	TCD-223M	.022	.473 x .156 x .250	.09	.07	.06	.05
710-1420	TCD-473M	.047	.590 x .156 x .375	.13	.11	.09	.075
710-1425	TCD-503M	.050	.590 x .156 x .375	.14	.11	.09	.077

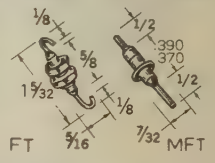
50 VOLT (150 VOLT TEST) +80-20% TOL.—Z5V CHAR.

Stock No.	Mfr's Type	μF	Size (Dia. x Thk. x Lead Spacing) Inches	EACH 1-24	25-99	100-999	1000-Up
710R1465	TCD-104Z	.100	.721 x .171 x .375	.218	.174	.145	.123

100 VOLT—TOL. +80-20%

710-1499	TCP-R1	.1	1.0x .156 x .375	.325	.26	.217	.185

FEED-THRU CERAMIC CAPACITORS



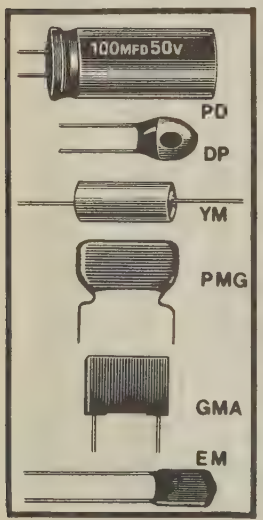
Type FT. For high-frequency circuits where feed-thru plus capacity ground is required. Double-flatted bushing, .281" long with 12-28 bushing, nut, 3 oz.
Type MFT. 7/32" maximum-diameter flange eyelet for insertion in .160" hole. Solder to chassis. Tolerance: (†) ±10%. (‡) Guaranteed min. valve. 3 oz.

Stock No.	Mfr's Type	pF	EACH 1-99	100-299	200-499	500-Up
748-3502	FT-1000†	1000	1.14	.91	.76	.65
748-4006	MFT-1000‡	1000	.36	.29	.24	.20

BRAND NEW AND READY-TO-GO DESIGN ENGINEER CAPACITOR KITS

NEW!

COMPARTMENT BOX
Each kit comes in this handy, lightweight, see-through plastic box designed to take the confusion out of storing capacitors furnished in the kit. It's compact, sturdy, and stacks easily. Fits anywhere in your shop, takes up very little space, and keeps your kit parts separated and easy to get to. Box provides parts adequate protection against weather, dust, and accidental knocking about.



PD SERIES KIT
Miniature radial lead aluminum electrolytic featuring vertical package welded construction. 75 per kit. **Mfd ratings:** 1, 2.2, 3.3, 4.7, 10 with working voltage of 50 VDC; 10, 22, 33, 47 at 35 VDC; 220, 470 at 25 VDC; 1000 at 16 VDC; plus 10 popular assorted values.
623-0510 ..... **Each 29.95**

DP SERIES KIT
Radial lead epoxy-dipped tantalum. Space-saving size with close tolerances. 60 per kit. **Mfd ratings:** 47 at working voltage of 6.3 VDC; 100 @ 10 VDC; 4.7, 6.8, 22 @ 16 VDC; 2.2, 4.7, 10 @ 25 VDC; .1, .22, .47, 1.0 @ 35 VDC, plus 10 popular assorted values.
623-0500 ..... **Each 29.95**

YM SERIES KIT
Metalized polyestor film capacitor of wrap and fill construction, noninductively wound. 50 per kit. **Mfd ratings:** .0047, .0068, .022, .033, .047, .068, .01, .22, .33, .47, .68, .1, 1.0, 2.2 at working voltage of 250 VDC, plus 10 popular assorted values.
623-0520 ..... **Each 29.95**

PMG SERIES KIT
Metalized polyestor film, epoxy-dipped with crimped radial leads. 75 per kit. **Mfd ratings:** .0047, .0068, .01, .022, .033, .047, .068, .1, .22, .33, .47, .68, 1.0 at working voltage of 250 VDC, plus 10 popular assorted values.
623-0530 ..... **Each 29.95**

GMA SERIES KIT
Metalized polyestor film capacitor with uniform size molded case, bottom fill with epoxy resin. 35 per kit. **Mfd ratings:** .0047 .0068, .01, .022, .033, .047, .068, .1, .22, .33, .47, .68, 1.0 at working voltage of 250 VDC, plus 5 popular assorted values.
623-0540 ..... **Each 29.95**

EM SERIES KIT
Epoxy-dipped polyestor film, subminiature size. 150 packaged in compartment box. **Mfd ratings:** .001, .0022, .0033, .0047, .0068, .01, .022, .033, .047, .068, .1, .22 at working voltage of 100 VDC.
623-0550 ..... **Each 29.95**

TT 15-1 MALLOBIN

- Convenient Plastic Storage Cabinet
- Compact Size for Easy Stacking
- See-Through Drawers for Easy Identification

"Tiny-tubular" aluminum electrolytic capacitors. Assortment contains two each of 15 ratings from 100 mfd @ 6 WVDC to 50 mfd @ 50 WVDC. Wire leads: 2" long (±¼"). Temperature Range: −55°C. to 85° C., 3 to 150 volts. Tolerance: −10%, +75%. Housed in permanent cabinet.
852-4710 ..... **Per Kit 23.50**

CERAMIC DISC CAPACITOR KIT

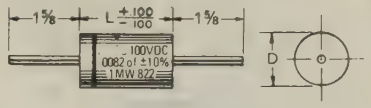
KIT—60D Disc Capacitor Kit. Contains 245 of the most widely used general purpose disc capacitors in 600 and 1000 WVDC units. For bypass and noncritical coupling applications. Includes five each: 5, 10, 15, 20, 22, 25, 33, 47, 50, 68, 120, 150, 180, 220, 250, 270, 300, 330, 390, 470, 500, 680, 820, 1500, 2200, 3000, 4700, 6800, 20,000, 50,000 pF. Ten each: 100, 200, 2000 pF. Fifteen each: 5000 pF. Twenty-five each: 1000, 10,000 pF. Sturdy 15-drawer cabinet.
748R0765 ..... **59.87**

Specify Stock No., Mfr's Type and Capacitance when Ordering

Mylar Capacitors

ALLIED TYPE 1MW GENERAL PURPOSE "MYLAR" WRAP FILM CAPACITORS

Alec Electron



General purpose (polyester) mylar wrap film capacitors, Type 1MW, are designed to provide the engineer with an economically priced film wrap unit and adequate high quality for use in industrial electronic equipment, computers, communications equipment, and home entertainment products. Rated Working Voltage Direct Current: 100. Extended-foil construction and moisture protected: Epoxy end-seals are bonded to film wrapper and leads. Operating Temperature Range: −55°C to +85°C to +100°C derated 10% to +125°C derated 50%. Applicable for a wide range of industrial, consumer and military uses.

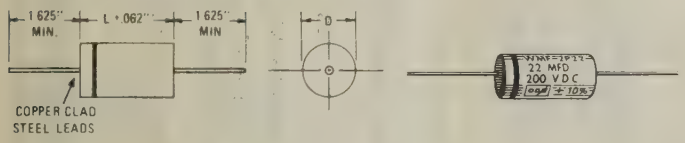
- **Extended-Foil Construction**
- **−55° C to +85° C**
- **Standard Tolerance: ±10%**
- **Voltage Rating: 100 VDC**
- **Moisture Protected: Epoxy End-Seals Bonded to Film Wrapper and Leads**

Stock No.	Type 1MW	uF	Size DxL	EACH 1-24	25-49	50-99	100-Up
710-2010	102	.001	.175x½	.23	.18	.15	.13
710-2050	222	.0022	.175x½	.23	.18	.15	.13
710-2140	103	.01	.200x½	.23	.18	.15	.13
710-2180	223	.022	.275x⅝	.23	.18	.15	.13
710-2220	473	.047	.245x¾	.23	.19	.16	.13
710-2230	503	.050	.270x¾	.23	.19	.16	.13
710-2270	104	.1	.290x⅞	.25	.20	.17	.14
710-2310	224	.22	.385x1	.27	.21	.18	.15

Stock. No.	Type 1MW	uF	Size DxL	EACH 1-24	25-49	50-99	100-Up
710-2330	334	.33	.415x1⅛	.32	.26	.24	.18
710-2350	474	.47	.475x1¼	.39	.31	.26	.22
710-2360	504	.50	.495x1¼	.40	.32	.27	.23
710-2380	684	.68	.570x1¼	.51	.40	.34	.29
710-2400	105	1.00	.625x1½	.70	.54	.47	.40
710-2430	205	2.00	.955x1⅜	1.16	.93	.77	.66
710-2450	405	4.00	1.250x2½	1.91	1.53	1.28	1.09
.....	....	....	.....	...	...	...	...

TYPE EWF/WMF "MYLAR" TUBULAR CAPACITORS

Encased in "Mylar" film, end-sealed with thermosetting epoxy. Temperature: −55°C to +125°C; full-rated voltage at 85°C. Tolerance at ±10%. First digit(s) of Type No. in chart below indicate Working Voltage Direct Current: **05** indicates 50 WVDC; **1** indicates 100 WVDC; **2** indicates 200 WVDC; **4** indicates 400 WVDC; **6** indicates 600 WVDC. Average shipping weight is 2 oz. When ordering, please specify Type No.



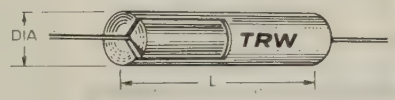
Stock No.	Type EWF-	Type WMF-	uF	Size DxL	EACH 1-24	25-49	50-99	100-Up
852R1412	05010	05P1	.1	1/4x13/16	.28	.22	.18	.16
852-1413	05022	05P22	.22	21/64x13/16	.33	.26	.22	.18
852-1414	05033	05P33	.33	13/32x13/16	.35	.28	.23	.20
852-1415	05050	05P5	.50	13/32x11/16	.45	.36	.30	.26
852-1410	0510	05W1	1.0	1/2x13/8	.80	.64	.53	.45
852-1411	0520	05W2	2.0	37/64x15/8	1.33	1.06	.89	.75
852-1429	1A210	1D1	.001	5/32x1/2	.23	.18	.15	.13
852-1430	1A215	1D15	.0015	5/32x1/2	.23	.18	.15	.13
852-1431	1A222	1D22	.0022	5/32x1/2	.23	.18	.15	.13
852-1432	1A233	1D33	.0033	5/32x1/2	.23	.18	.15	.13
852-1433	1A247	1D47	.0047	5/32x1/2	.23	.18	.15	.13
852-1434	1A268	1D68	.0068	11/64x1/2	.23	.18	.15	.13
852R1423	1A110	1S1	.01	13/64x1/2	.23	.18	.15	.13
852-1424	1A115	1S15	.015	15/64x1/2	.23	.18	.15	.13
852-1425	1A122	1S22	.022	9/32x9/16	.23	.18	.15	.13
852-1426	1A133	1S32	.033	19/64x5/8	.23	.18	.15	.13
852-1427	1A147	1S47	.047	17/64x3/4	.23	.18	.15	.13
852-1428	1A168	1S68	.068	9/32x3/4	.25	.20	.17	.14
852R1416	1A01	1P1	.1	19/64x7/8	.25	.20	.17	.14
852-1417	1A015	1P15	.15	31/64x7/8	.25	.20	.17	.14
852-1418	1A022	1P22	.22	25/64x1	.28	.22	.18	.16
852-1419	1A033	1P33	.33	27/64x11/8	.35	.28	.23	.20
852-1420	1A047	1P47	.47	15/32x11/4	.38	.30	.25	.21
852-1421	1A10	1W1	1.0	5/8x11/2	.73	.58	.48	.41
852-1422	1A15	1W1P5	1.5	25/32x13/4	1.00	.80	.69	.57
852-1440	2210	2D1	.001	5/32x1/2	.23	.18	.15	.13
852-1441	2222	2D22	.0022	5/32x1/2	.23	.18	.15	.13
852-1442	2233	2D33	.0033	5/32x1/2	.23	.18	.15	.13
852-1438	2110	2S1	.01	15/64x1/2	.23	.18	.15	.13
852-1439	2147	2S47	.047	21/64x3/4	.23	.18	.15	.13
852-1436	2010	2P	.1	13/32x7/8	.33	.26	.22	.18
852-1437	2022	2P22	.22	1/2x11/8	.35	.28	.23	.20
852-1435	210	2W1	1.0	3/4x13/4	.73	.58	.48	.41
852-1449	4147	4S47	.047	13/32x7/8	.25	.20	.17	.14
852-1445	4010	4P1	1	15/32x1	.28	.22	.18	.16
852-1446	4022	4P22	.22	9/16x13/8	.35	.28	.23	.20
852-1447	4047	4P47	.47	45/64x15/8	.70	.56	.47	.40
852-1448	4068	4P68	.68	11/64x13/4	.85	.68	.57	.48
852-1443	410	4W1	1.0	7/8x2	1.00	.80	.67	.57
852-1444	420	4W2	2.0	1 1/4x2 1/4	1.63	1.30	1.09	.92
852-1454	6110	6S1	.01	19/64x3/4	.28	.22	.18	.16
852-1455	6147	6S47	.047	27/64x1	.28	.22	.18	.16
852-1451	6010	6P1	.1	33/64x13/8	.38	.30	.25	.21
852-1452	6022	6P22	.22	21/32x15/8	.50	.40	.33	.28
852-1453	6047	6P47	.47	55/64x2	1.00	.80	.69	.57
852-1450	610	6W1	1.0	1 11/16x2 1/2	2.15	1.72	1.44	1.22

TYPE 601PE MYLAR CAPACITORS

The space-saving design of these Mylar capacitors makes them particularly suitable for use in transistor printed circuit boards and other associated circuitry. In situations where stability with temperature change characteristics are important they make excellent replacements for the more frequently used ceramic types. Dipped epoxy coating seals winding and lead entries for high dielectric strength and humidity resistance. Operating Temperature Range: −55°C to +85°C. For operation at +125°C derate 50%. Listed capacitors rated at 50 WVDC. Tolerance: ±10@. Av. shpg. wt: 1 ounce.

Stock No.	µF	Size, In. DxWxL	EACH 1-24	25-49	50-99	100-Up
960-4020	.01	13/32x1 1/32x1 3/64	1.30	1.04	.87	.74
960-4030	.033	1 1/32x1 1/32x3/8	1.50	1.20	1.00	.85
960-4045	.10	21/32x1 1/32x1 5/64	1.77	1.42	1.19	1.01
960-4055	.22	47/64x1 1/16x5/8	1.95	1.56	1.30	1.11

TYPE 663U MYLAR CAPACITORS



These Mylar capacitors with "skin-tight" cases lend themselves to tight space situations. Meticulously designed and engineered for long, stable life. Constructed with high insulation resistance and low dissipation factor. Epoxy end-fills standard for high humidity resistance. Operating Temperature Range: −85°C to +125°C with 50% derating. All capacitors listed have the standard ±10% tolerance. Available in 2 Working Volt DC sizes: 100 WVDC and 200 WVDC. Average shipping weight: 2 ounces.

100 WVDC

Stock. No.	uF	Size, In. D x L	EACH 1-24	25-49	50-99	100-Up
960-6010	.001	5/32x1/2	.75	.60	.50	.43
960-6070	.01	5/32x1/2	.85	.68	.57	.48
960-6135	.10	9/32x7/8	.95	.76	.63	.54
960-6200	1.0	19/32x1 1/2	1.53	1.22	1.02	.87

200WVDC

960-6201	1.0	43/64x1 3/4	1.53	1.22	1.02	.87

TYPE X663F METALLIZED "MYLAR" CAPACITORS

Thin oval shape. Metallized mylar dielectric is self healing. These capacitors, identical in price and size to 100 WVDC units are rated at 200 WVDC. Operating Temperature Range: −55°C to +100°C. Derate 50% for +125°C. Tolerance: ±10%. Average shpg. wt: 2 ounces.

Stock No.	µF	Size, In. DxWxL	EACH 1-24	25-49	50-99	100-Up
960-3005	.01	5/32x13/64x7/16	1.55	1.22	1.02	.87
960-3010	.022	13/64x17/64x3/16	1.40	1.12	.94	.80
960-3020	.047	17/64x17/64x3/16	1.30	1.04	.87	.74
960R3025	.10	1/4x23/64x5/16	1.30	1.04	.87	.74
960-3030	.22	17/64x3/8x1 1/16	1.40	1.12	.94	.80
960-3035	.33	19/64x31/64x1 1/16	1.70	1.36	1.14	.97
960-3040	.47	23/64x35/64x1 1/16	1.82	1.46	1.22	1.04
960-3045	.68	11/32x33/64x15/16	2.00	1.60	1.34	1.14
960R3050	1.00	27/64x19/32x15/16	2.30	1.84	1.54	1.31
960-3055	1.5	9/16x37/64x1 1/4	2.77	2.22	1.84	1.56
960-3060	2.00	27/64x23/32x1 1/4	3.05	2.13	1.95	1.73
960-3065	3.00	29/64x49/64x1 1/2	3.65	2.94	2.44	2.07
960-3070	4.00	1/2x57/64x1 1/2	4.52	3.62	3.02	2.57
960R3075	5.00	33/64x29/32x1 3/4	5.12	4.10	3.42	2.91

Mica, Ceramic, and Polystyrene Capacitors

Alec Electron

SILVERED MICA CAPACITORS

Oper. temp. range: —55 to 125°C w/out derating. Tolerance: ±5% or 0.5 pF, whichever is greater; 500 WVDC, 1¼" tinned brass wire leads. All meet 10-2000 cycle vibration tests. **Marked with MIL & Commercial Type No.'s.**

Mfr's Type	MIL Type	Size (HxWxD) (Inches)
DM/CD10	CM04	.360x.330x.190 to .390x.380x.220
DM/CD15	CM05	.450x.360x.170 to .470x.400x.220
DM/CD19	CM06	.640x.510x.200 to .700x.580x.350

TYPES DM/CD 10, 15, 19

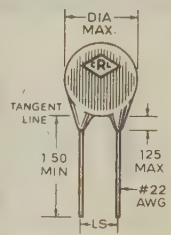
Stock No.	Mfr's Type DM or CD	pF	EACH 1-24	25-99	100-499	500-up
782-0805	10CD050D03	5	.22	.18	.15	.13
782-0808	10CD100J03	10	.22	.18	.15	.13
782-0810	10CD120J03	12	.22	.18	.15	.13
782-0814	10CD180J03	18	.22	.18	.15	.13
782-0835	10ED220J03	22	.18	.14	.12	.10
782-0850	10ED270J03	27	.18	.14	.12	.10
782-0855	10ED330J03	33	.18	.14	.12	.10
782-0857	10ED390J03	39	.20	.16	.13	.11
782-0860	10ED470J03	47	.20	.16	.13	.11
782-0862	10ED510J03	51	.20	.16	.13	.11
782-0868	10ED680J03	68	.20	.16	.13	.11
782-0872	10ED820J03	82	.21	.16	.14	.12
782R0818	10ED101J03	100	.21	.17	.14	.12
782-0822	10ED121J03	120	.21	.17	.14	.12
782-0826	10ED151J03	150	.22	.18	.15	.12
782-0830	10ED181J03	180	.26	.20	.17	.14
782-0837	10ED221J03	220	.29	.23	.19	.16
782-0845	10ED251J03	250	.33	.26	.22	.18
782-0905	15CD050K03	5	.15	.12	.10	.08
782-0909	15CD100K03	10	.15	.12	.10	.08
782-0923	15CD220J03	22	.14	.11	.09	.08
782-0928	15ED270J03	27	.14	.11	.09	.08
782-0930	15ED300J03	30	.14	.11	.09	.08
782-0932	15ED330J03	33	.14	.11	.09	.08
782-0934	15ED360J03	36	.14	.11	.09	.08
782-0936	15ED390J03	39	.14	.11	.09	.08
782-0938	15ED470J03	47	.14	.11	.09	.08
782-0940	15ED500J03	50	.14	.11	.09	.08
782-0942	15ED510J03	51	.14	.11	.09	.08
782-0944	15ED560J03	56	.14	.11	.09	.08
782-0946	15ED620J03	62	.14	.11	.09	.08
782-0948	15ED680J03	68	.14	.11	.09	.08
782-0951	15ED750J03	75	.14	.11	.09	.08
782-0953	15ED820J03	82	.14	.11	.09	.08
782R0956	15ED101J03	100	.14	.11	.09	.08
782-0960	15FD121J03	120	.16	.12	.10	.09
782R0964	15FD151J03	150	.17	.13	.11	.09
782-0973	15FD201J03	200	.19	.15	.13	.11
782-0976	15FD221J03	220	.20	.16	.13	.11
782-0979	15FD241J03	240	.21	.17	.14	.12
782-0982	15FD271J03	270	.22	.18	.15	.13
782-0985	15FD301J03	300	.24	.19	.16	.14
782-0988	15FD331J03	330	.26	.21	.18	.15
782-0991	15FD361J03	360	.28	.22	.19	.16
782-0994	15FD391J03	390	.29	.23	.19	.16
782-0997	15FD501J03	500	.34	.27	.22	.19
782-0999	15FD511J03	510	.35	.28	.23	.20
782R1134	19FD471J03	470	.28	.22	.18	.16
782-1138	19FD511J03	510	.28	.22	.18	.16
782-1140	19FD561J03	560	.28	.22	.18	.16
782-1142	19FD621J03	620	.30	.24	.20	.17

TYPE DM/CD 19 (Cont'd)

Stock No.	Mfr's Type DM or CD	pF	EACH 1-24	25-99	100-499	500-up
782R1144	19FD681J03	680	.30	.24	.20	.17
782-1146	19FD751J03	750	.35	.28	.23	.20
782-1148	19FD821J03	820	.38	.30	.25	.21
782-1151	19FD911J03	910	.43	.34	.28	.24
782R1105	19FD102J03	1000	.38	.30	.25	.21
782-1109	19FD122J03	1200	.48	.38	.32	.27
782-1111	19FD152J03	1500	.55	.44	.37	.31
782-1115	19FD202J03	2000	.38	.30	.25	.21
782-1117	19FD222J03	2200	.73	.58	.48	.41
782-1121	19FD272J03	2700	.83	.66	.55	.47

TYPES DM/CD 19, 30

782-1123	19FD302J03	3000	.84	.67	.56	.48
782-1127	19FD392J03	3900	1.02	.82	.68	.58
782-1132	19FD432J03	4300	1.13	.90	.75	.64
782-1150	30FD512J03	5100	1.31	1.05	.88	.74



SERIES DD DISC CERAMICS

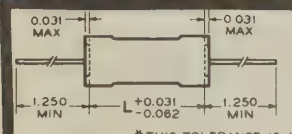
Recommended where high capacity is required and stability is secondary. For general purpose applications. Designed for noncritical coupling, by-pass and filter applications found in all types of entertainment, industrial and medical equipment. Operating temp. range: —55° to +85°C. Tinned wire leads. Encapsulation: Durex coated, wax impregnated. Dielectric strength: 200% of rated working voltage. These high dielectric ceramic discs offer small size, tighter tolerances and a rugged humidity resistant coating. Types DD16, 30, 60: Buffer capacitors. Wt. 2 oz.

C1 CERAMIC BY-PASS CAPACITOR

For AC line by-pass application, or where a steady or intermittent higher voltage may occur. Tol. ±20%, Oper. Temp. to +85%, 1400 WVDC or 150 VAC. Leads: #22 tinned copper, 1½" long. U.L. 1 oz.

Stock No.	Mfr's Type	pF	Dia. (In.)	EACH 1-99	100-199	200-499	500-Up
748-0335	CI-103	10,000	.840	.30	.24	.20	.17

Stock No.	Mfr's Type	pF	WV DC	% Tol	Size, In. DxTxSpac.	EACH 1-99	100-199	200-499	500-Up
748-0437	DD-050	5	1000	±10	.290x.156x.250	.14	.11	.09	.08
748-0443	DD-100	10	1000	±10	.290x.156x.250	.14	.11	.09	.08
748-0526	DD-250	25	1000	±10	.290x.156x.250	.30	.24	.20	.17
748-0588	DD-330	33	1000	±10	.290x.156x.250	.14	.11	.09	.08
748-0665	DD-470	47	1000	±10	.290x.156x.250	.14	.11	.09	.08
748-0685	DD-500	50	1000	±10	.290x.156x.250	.14	.11	.09	.08
748-0445	DD-101	100	1000	±10	.305x.156x.250	.14	.11	.09	.08
748-0460	DD-121	120	1000	±10	.305x.156x.250	.14	.11	.09	.08
748-0468	DD-151	150	1000	±10	.305x.156x.250	.14	.11	.09	.08
748-0504	DD-221	220	1000	±10	.305x.156x.250	.14	.11	.09	.08
748-0590	DD-331	330	1000	±11	.305x.156x.250	.14	.11	.09	.08
748-0667	DD-471	470	1000	±10	.305x.156x.250	.14	.11	.09	.08
748-0687	DD-501	500	1000	±10	.305x.156x.250	.14	.11	.09	.08
748-0497	DD-202	2,000	1000	±20	.405x.156x.250	.14	.11	.09	.08
748-0452	DD-103	10,000	1000	GMV	.705x.156x.375	.28	.22	.19	.16
748-0805	DD16-103	10,000	1600	GMV	.835x.172x.375	.38	.30	.25	.21
748-0865	DD30-101	100	3000	±20	.330x.203x.250	.20	.16	.14	.12
748-0867	DD30-102	1,000	3000	±20	.430x.203x.250	.23	.18	.15	.13
748-0912	DD30-502	5,000	3000	±20	.800x.203x.375	.52	.41	.35	.29
748-0977	DD60-501	500	6000	±20	.630x.203x.375	.52	.41	.35	.29
748-0944	DD60-102	1,000	6000	±20	.630x.203x.375	.52	.41	.35	.29
748-0955	DD60-202	2,000	6000	±20	.760x.313x.375	.71	.57	.47	.40



*THIS TOLERANCE IS ±0.015 ON 0.170 DIA UNITS AND BELOW

TYPE M192P "PACER" FILMITE "E"

Miniature capacitors have polyester film dielectric, epoxy coating. Non-inductive. —55° to +85° C: derate 50% at 105° C. Tolerance: ±10%. "R" in Mfr's Type indicates 80 WVDC, others 200 WVDC. Shpg. wt. 2 oz.

Code	Size	Code	Size	Code	Size
A	¾4x⅜"	D	11⁄64x½"	K	21⁄64x⅝"
B	11⁄64x⅜"	E	7⁄32x7⁄16"	.....	.....
C	1⁄64x7⁄16"	F	7⁄32x9⁄16"	.....	.....

Stock No.	Type M192P	uF	Size Code	EACH 1-24	25-49	50-99	100-Up
852-8178	2229R8	.0022	A	.36	.29	.24	.21
852-8187	3929R8	.0039	A	.36	.29	.24	.21
852-8190	4729R8	.0047	A	.36	.29	.24	.21
852-8193	5629R8	.0056	B	.36	.29	.24	.21
852-8170	1039R8	.01	B	.34	.27	.22	.19
852-8185	3339R8	.033	E	.41	.33	.27	.23
852-8191	4739R8	.047	F	.43	.35	.29	.25
852-8180	2249R8	.22	K	.77	.61	.51	.44
852-8102	10292	.001	A	.25	.20	.17	.14
852-8113	22292	.0022	B	.25	.20	.17	.14
852-8121	47292	.0047	C	.26	.21	.17	.15
852-8103	10392	.01	D	.28	.22	.18	.16
852-8114	22392	.022	F	.30	.24	.22	.17
852-8104	10492	.1	K	.45	.36	.30	.25

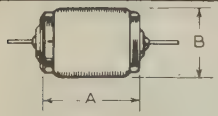
TYPE IMDF MYLAR RECTANGULAR

Wound from polyester film and thin gage foil under controlled atmospheric conditions. Protected against moisture by a wax-free conformal coating of epoxy. Wax dripping at elevated temperatures is completely eliminated. Specifically furnished with radial leads to facilitate insertion on boards. Tolerance, ±10%. For operation from —55° to +105°C. Length .70"xWidth .40"xHeight .35", except *.55"; †.80x.46x.70". Shpg. wt. 2 oz.

Stock No.	Type IMDF	uF	WV DC	EACH 1-24	25-49	50-99	100-up
782-6918	1-102	.001	100	.24	.19	.16	.13
782-6938	1-222	.0022	100	.24	.19	.16	.13
782-6963	1-472	.0047	100	.24	.19	.16	.13
782R6921	1-103	.01	100	.24	.19	.16	.13
782-6931	1-153	.015	100	.24	.19	.16	.13
782-6944	1-223	.022	100	.24	.19	.16	.13
782-6957	1-333	.033	100	.26	.21	.18	.15
782R6966	1-473	.047	100	.29	.23	.19	.16
782-6972	1-563	.056	100	.29	.23	.19	.16
782R6924	1-104	.1*	100	.28	.22	.18	.16
782-6914	2-224	.22†	100	.38	.30	.25	.21

POLYSTYRENE CAPACITORS

● SX 600VDC ● SXL 63VDC ● SXM 160VDC



Capacitors are stretched polystyrene dielectric fused to high-purity aluminum foil—produces excellent humidity barrier. Excellent where utmost capacitance stability versus temperature and time are required, due to high insulation resistance and power factor of less than .05%. Capacitance change from —10°C to +70°C is less than 1.3% total and is negative. Temperature coefficient, —150 ppm/°C, ±60 ppm/°C. 600 WVDC types have a tolerance of ±5%. Temperature ranges —40°C to +85°C. Cleaning solvents: alcohol is best, freon will discolor only. Warning: chlorinated solvents will attack polystyrene. ***For prices and sizes on all types use price locator at left. Shpg. wt. 1 oz.**

PRICE LOCATOR

Price Code	1-24	25-99	100-249	250-Up
A	.13	.10	.09	.07
B	.16	.13	.11	.09
C	.18	.14	.12	.10
D	.20	.16	.13	.11
E	.24	.19	.16	.13
F	.34	.27	.23	.19
G	.43	.34	.28	.24
H	1.97	1.38	1.32	1.12

SXL/SXM SIZE CHART

pF	Nominal Length	Nominal Diameter
1500-1800	.473	.257-.271
3000-5600	.710	.252-.308
8200-47k	.886	.309-.585
68k	1.3	.473
470k	1.74	.866

Stock No.	Type SX	pF	*
852-0010	420	20	A
852-0011	422	22	A
852-0014	430	30	A
852-0015	433	33	A
852-0019	447	47	A
852-0020	456	56	A
852-0026	310	100	A
852-0030	315	150	A
852-0033	320	200	A
852-0034	322	220	A
852-0036	327	270	A
852-0037	330	300	A
852-0038	333	330	A
852-0040	339	390	A
852-0042	347	470	A
852-0043	351	510	A
852-0044	356	560	A
852-0045	362	620	A
852-0046	368	680	A
852-0047	375	750	A
852-0048	382	820	A
852-0050	210	1000	A
852-0052	212	1200	B
852-0053	213	1300	B
852-0054	215	1500	B
852-0056	218	1800	B
852-0057	220	2000	B
852-0058	222	2200	B
852-0061	227	2700	B
852-0062	230	3000	B
852-0063	233	3300	C
852-0065	239	3900	C
852-0067	247	4700	C
852-0068	250	5000	C
852-0070	256	5600	C
852-0072	268	6800	C
852-0074	282	8200	C
852-0076	110	10k	C

Stock No.	Type SXL	pF	*
852-0079	115	15k	D
852-0082	122	22k	E
852-0083	124	24k	E
852-0085	118	18k	E
852-0086	133	33k	F
852-0088	139	39k	F
852-0090	147	47k	F
.....	.....	.....	...

Stock No.	Type SXL	pF	
852-0093	168	68k	G
852-0104	047	470k	H

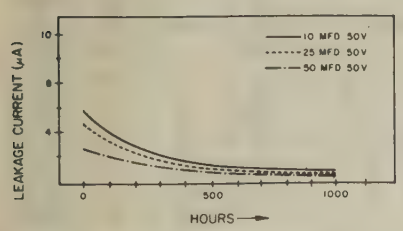
Stock No.	Type SXM	pF	
852-0110	110	10k	A
852-0112	115	15k	D
852-0114	122	22k	E
852-0135	215	1500	A
852-0138	218	1800	A
852-0140	230	3000	A
852-0143	233	3300	A
852-0147	247	4700	A
852-0156	256	5600	A
852-0182	282	8200	A
.....	.....	.....	...

Alec Electron Says—Call Allied for Larger Quantity Pricing

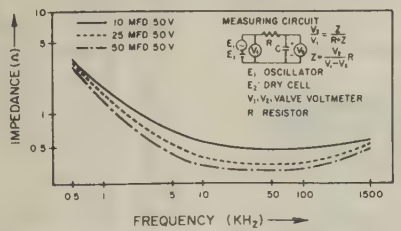
Allied Miniature Electrolytics at Reasonable Prices

RADIAL AND AXIAL LEAD MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

- **Top quality electrolytics at low price**
- **Ultra small—excellent, dependable unit for all types of equipment**
- **Feature all welded construction—no pressure joints to break down**
- **Offer low leakage current and long shelf life**
- **Stands temperatures to 85° C (185° F)**
- **For transistorized and tube circuits**
- **Bonded plastic insulating sleeve**



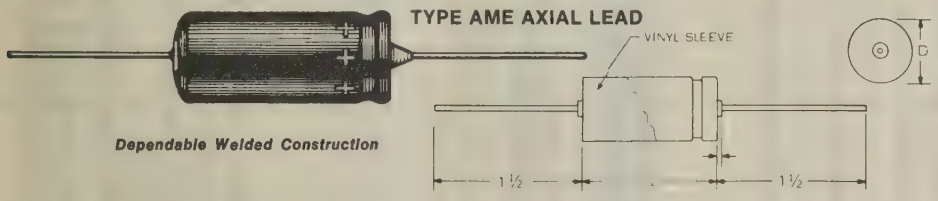
LEAKAGE CURRENT CURVE



FREQUENCY CHARACTERISTIC CURVE

Miniature aluminum-cased electrolytic capacitors use high purity (99.99%) etched aluminum foil. Effectively operate at up to 85°C; ideal for both transistorized and tube circuits. Offer excellent performance characteristics in a wide range of electronic equipment, including: TV, high-fidelity, business machines, control devices, test instruments and computer peripheral equipment. All-welded construction assures increased ruggedness and resistance to environmental extremes; eliminates corrosion and electrolyte leakage. Extremely low leakage current. Insulated with permanently-bonded plastic sleeve. Replace other manufacturers' types as shown in "Cross-Reference Guide" at bottom of page.

TYPE AME AXIAL LEAD



Dependable Welded Construction

Compact capacitors for original equipment or replacement use in all kinds of communications, data processing, high fidelity and test equipment. Operating temperature: —30° to +85° C. Tolerance: —10%, +100%. DC leakage current: 5 microamperes or 0.03 V x C (applied DC voltage times capacitance in microfarads), whichever is greater. Leads: axial, 1¼-inch long minimum, #20 or #22 tinned copper.

CASE SIZES—TYPE AME AXIAL LEAD

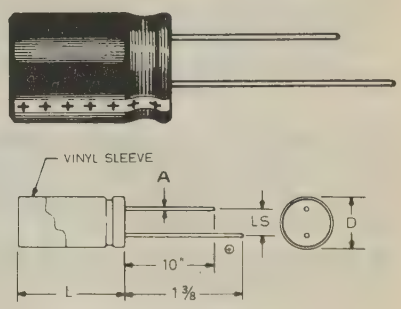
Case Code	Sizes, Inches Dia. x Lgth.	Case Code	Size, Inches Dia. x Lgth.
1	.216 x .551	5	.413 x .827
2	.256 x .591	6	.413 x .827
3	.335 x .748	7	.413 x .827
4	.413 x .827	8	413 x .827

TYPE AME AXIAL LEAD PRICE LIST

Stock No.	Allied Type	Cap., uF	WV DC	Case Code	EACH 1-49	50-99	100-499	500-Up
710-1191	2-B-050	50	6	2	.18	.14	.12	.10
710-1192	3-B-100	100	6	3	.19	.14	.12	.11
710-1193	6-B-200	200	6	6	.24	.19	.16	.13
710-1214	1-D-010	10	12	2	.17	.13	.11	.09
710-1216	4-D-100	100	12	4	.24	.19	.16	.13
710-1218	8-D-250	250	12	8	.29	.23	.19	.16
710-1228	1-E-005	5	15	1	.17	.13	.11	.09
710-1230	2-E-020	20	15	2	.17	.13	.11	.09
710-1231	2-E-025	25	15	2	.17	.13	.11	.09
710-1232	3-E-030	30	15	3	.18	.14	.12	.10
710-1233	3-E-050	50	15	3	.20	.16	.13	.11
710R1234	4-E-100	100	15	4	.24	.19	.16	.14
710-1235	6-E-200	200	15	6	.29	.23	.19	.16
710R1245	1-G-001	1	25	1	.16	.13	.11	.09
710-1246	1-G-002	2	25	1	.16	.13	.11	.09
710-1247	1-G-004	4	25	1	.17	.14	.12	.10
710R1248	1-G-005	5	25	1	.17	.14	.12	.10
710-1249	2-G-006	6	25	2	.17	.14	.12	.10
710-1250	2-G-008	8	25	2	.19	.15	.13	.11

Stock No.	Allied Type	Cap., uF	WV DC	Case Code	EACH 1-49	50-99	100-499	500-Up
710R1251	2-G-010	10	25	2	.19	.15	.13	.11
710-1252	3-G-015	15	25	3	.20	.16	.14	.12
710-1253	3-G-020	20	25	3	.20	.16	.14	.12
710R1254	3-G-025	25	25	3	.20	.16	.14	.12
710-1255	3-G-030	30	25	3	.23	.19	.16	.13
710-1256	4-G-035	35	25	4	.23	.19	.16	.13
710R1258	4-G-050	50	25	4	.25	.20	.17	.14
710R1260	7-G-100	100	25	7	.33	.26	.22	.18
710-1270	1-J-001	1	50	1	.17	.14	.12	.10
710-1271	1-J-002	2	50	1	.17	.14	.12	.10
710-1274	2-J-005	5	50	2	.20	.16	.14	.12
710R1277	3-J-010	10	50	3	.22	.17	.14	.12
710-1278	4-J-015	15	50	4	.27	.21	.18	.15
710-1279	4-J-020	20	50	4	.27	.21	.18	.15
710-1280	4-J-025	25	50	4	.27	.21	.18	.15
710R1284	7-J-050	50	50	7	.33	.26	.22	.18
710-1294	2-M-001	1	100	3	.23	.18	.15	.13
710-1310	3-N-001	1	150	3	.20	.15	.13	.11
710-1313	4-N-010	10	150	4	.27	.21	.18	.15

TYPE ARME



TYPE ARME RADIAL LEAD

Operating temperature: —25°C to +85°C. Tolerance: less than 5 μF; —0, +150%; 5 μF and over, —0, +100%. Leakage current: 0.03 V x C (DC voltage times capacitance in μF) + 5 μA max. Dissipation factor: 6.3 V, 30%; 10 V, 25%; 16-50 V, 20%. Life test: after 500 hours at 85°C with maximum rated voltage, capacitance will be within 85% and ESR within 130%. Low temperature: at —20°C, capacitance will be 80% minimum of the value originally measured at +25°C. Mechanical: leads withstand 4 bends without breakage. All units marked with voltage and rated capacitance. † Indicates new standard values which are in accordance with EIA, IEC and JIS specifications.

CASE SIZES — TYPE ARME RADIAL LEAD

Case Code	Sizes, Inches Dia. x Lgth.	Lead AWG	Case Code	Size, Inches Dia. x Lgth.	Lead AWG
A	.197 x .433	25	G	.512 x .807	25
B	.236 x .433	25	H	.512 x .965	25
C	.315 x .453	25	J	.591 x .965	21
D	.394 x .492	25	L	.591 x 1.378	21
E	.394 x .650	25	M	.787 x 1.625	21
F	.394 x .748	25			

TYPE ARME RADIAL LEAD PRICES

Stock No.	Allied Type	Cap., uF	WV DC	Case Code	EACH 1-9	10-99	100-999	1000-Up
710-1327	A-D-010	10	0-10	A	.13	.10	.08	.07
710-1329	D-D-050	†47-50	0-10	C	.14	.11	.09	.08
710-1336	E-E-050	†47-50	0-16	D	.15	.12	.10	.09
710-1330	E-E-100	100	0-16	D	.18	.14	.12	.10
710-1338	J-E-250	250	0-16	G	.19	.15	.13	.11
710-1339	L-E-500	†470-500	0-16	J	.33	.26	.22	.18
710-1340	N-E-1000	1000	0-16	L	.46	.37	.31	.26
710-1352	B-G-010	10	0-25	B	.13	.11	.09	.08
710-1353	D-G-025	25	0-25	C	.15	.12	.10	.09
710-1354	F-H-050	†47-50	0-35	E	.20	.16	.13	.11
710-1355	G-G-100	100	0-25	F	.21	.17	.14	.12
710-1356	K-G-250	250	0-25	H	.30	.24	.20	.17
710-1357	N-G-500	†470-500	0-25	L	.43	.34	.29	.24
710-1374	J-H-100	100	0-35	G	.29	.23	.20	.17
710-1375	L-H-250	250	0-35	J	.36	.29	.24	.20
710-1350	A-J-001	1	0-50	A	.13	.10	.08	.07
710-1520	R-H-1000	1000	0-50	M	.95	.76	.63	.54

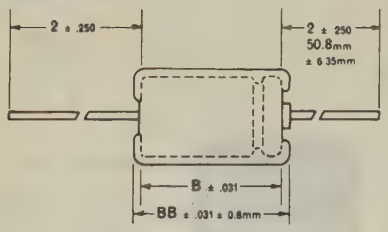
Large Quantities at Low Pocketbook Prices with Right-Off-the-Shelf Delivery Any Time from Allied Electronics.

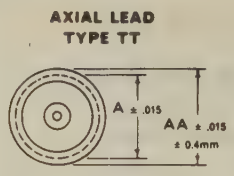
CROSS-REFERENCE GUIDE OF ALLIED TYPES TO OTHER MANUFACTURERS

Lead Style	ALLIED Type	ARCO Type	Sprague Type	Cornell-Dubilier	Mallory Type	Amperex Type	General Electric	General Instruments	Matsushita
Axial	AME	ME	TE; 30D; 500D; WH11D	NLW	TT	C426; C427	76F; 77F	974	ECE-B
Radial	ARME	RME	502D	PC	...	....	....	975	ECE-A

Miniature and Molded Electrolytic Capacitors

TT MINIATURE ALUMINUM ELECTROLYTICS





The TT axial-lead aluminum electrolytic capacitor is designed for maximum capacitance in the smallest case. Offers a temperature range of −55°C to +85°C. Aluminum can has rubber end seal. **Electrical Test Conditions:** Accuracy of ±2% under standard temperature of 25°C. **Low DC Leakage:** DCL in microamps is less than the value given. **Surge Voltage:** Withstands surge voltage applied at a rate of ½ minute on, 4½ minutes off, for 1000 successive cycles at 25°C. Capacitance does not change more than 10%, ESR does not increase more than 150% from the original limit. DCL remained within original limit.

Low DC Leakage: DCL in microamperes is less than the value given. **Life:** Results after 85°C for 1000 hours at rated voltage of the capacitor—capacity does not decrease more than 1% from the initial value. ESR does not increase more than 150% from the original limit. DCL remained within the original limits.

SIZE CHART

CODE	A Dia. (In.)	B Lgth. (In.)	CODE	A Dia. (In.)	B Lgth. (In.)	CODE	A Dia. (In.)	B Lgth. (In.)
A	1/4	5/8	J	3/8	1	U	7/16	2
B	1/4	11/16	K	3/8	1 1/8	X	1/2	1 3/4
C	1/4	3/4	L	3/8	1 3/8	Y	1/2	2
D	5/16	5/8	M	3/8	1 1/2	AA	1/2	1 3/8
E	5/16	11/16	N	1/2	1	BB	5/8	1 3/8
F	5/16	3/4	R	7/16	1 3/8	CC	5/8	1 1/8
G	3/8	3/4	T	7/16	1 3/4	DD	1/2	1 1/8
H	3/8	7/8	...	...	...	EE	3/8	5/8

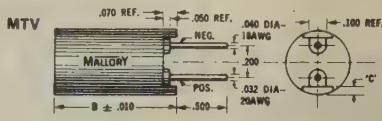
NOTE! We stock higher voltages when the case size is the same and price is the same. Example: uF is available in these working voltages, all in the same case size and at the same price: 3, 10, 15, 25 and 50. We stock the 50 WVDC unit! You get the higher WV at no extra cost!

Stock No.	Mfr's Type TT	uF	WV DC	Case Code	EACH 1-24	25-49	50-99	100-Up
852-4524	6X50A	50	6	A	.45	.36	.30	.257
852-4527	6X100A	100	6	D	.62	.50	.41	.35
852-4528	6X150A	150	6	D	.71	.57	.40	.35
852-4534	6X1000A	1000	6	N	.96	.77	.55	.48
852-4547	10X100A	100	10	D	.71	.57	.40	.35
852-4548	10X200A	200	10	G	.78	.62	.44	.39
852-4549	10X300	300	10	H	.80	.64	.45	.40
852-4551	10X500	500	10	K	.80	.64	.45	.40
852-4554	10X1000A	1000	10	AA	.96	.77	.55	.48
852-4557	10X2400	2400	10	Y	1.24	.99	.70	.62
852-4564	12X1000A	1000	12	AA	1.02	.82	.58	.51
852-4566	12X2000A	2000	12	BB	1.24	.99	.70	.62
852-4574	15X10	10	15	A	.48	.38	.27	.24
852-4576	15X20A	20	15	A	.46	.36	.26	.23
852-4577	15X25A	25	15	A	.46	.36	.26	.23
852-4578	15X30A	30	15	A	.52	.41	.29	.26
852-4581	15X50A	50	15	A	.52	.41	.29	.26
852-4583	15X100A	100	15	A	.71	.57	.40	.35
852-4584	15X150A	150	15	F	.74	.59	.42	.37
852-4585	15X200A	200	15	G	.78	.62	.44	.39
852-4587	15X350	350	15	K	.80	.64	.46	.40
852-4588	15X400	400	15	K	.90	.72	.51	.45
852-4589	15X500	500	15	L	.90	.72	.51	.45
852-4590	15X600	600	15	M	.90	.72	.51	.45
852R4592	15X1000A	1000	15	AA	.96	.77	.55	.48
852-4593	15X1500A	1500	15	CC	1.09	.87	.62	.54
852-4601	25X10	10	25	A	.48	.38	.27	.24
852-4602	25X15A	15	25	A	.48	.38	.27	.24
852-4603	25X20A	20	25	A	.52	.41	.29	.26
852-4604	25X25B	25	25	A	.52	.41	.29	.26
852-4605	25X35A	35	25	C	.52	.41	.29	.26
852-4606	25X50A	50	25	E	.68	.55	.39	.34
852-4607	25X75A	75	25	G	.68	.55	.39	.34
852R4608	25X100B	100	25	B	.74	.60	.42	.37
852-4609	25X150	150	25	J	.78	.62	.44	.39

Stock No.	Mfr's Type TT	uF	WV DC	Case Code	EACH 1-24	25-49	50-99	100-Up
852-4610	25X200	200	25	K	.80	.63	.46	.40
852-4611	25X300	300	25	M	.90	.72	.51	.45
852-4612	25X400	400	25	R	.96	.77	.55	.48
852R4613	25X500	500	25	DD	1.02	.82	.59	.51
852-4614	25X600	600	25	T	1.09	.87	.62	.54
852-4615	25X800	800	25	X	1.09	.87	.62	.54
852-6660	150DE35	150	35	N	.71	.55	.48	.41
852-4617	50X2	2	50	A	.46	.37	.26	.22
852-4619	50X4	4	50	A	.46	.37	.26	.22
852R4620	50X5A	5	50	A	.46	.37	.26	.22
852-4621	50X6B	6	50	E	.73	.58	.48	.38
852-4622	50X8A	8	50	A	.46	.37	.26	.22
852R4623	50X10B	10	50	A	.46	.37	.26	.22
852-4624	50X15A	15	50	C	.53	.42	.30	.27
852-4625	50X20B	20	50	D	.68	.55	.39	.34
852-4626	50X25A	25	50	E	.68	.55	.39	.34
852-4627	50X35A	35	50	G	.71	.57	.40	.35
852R4628	50X50B	50	50	G	.74	.60	.42	.37
852-4629	50X75	75	50	J	.78	.62	.44	.39
852R4630	50X100	100	50	K	.80	.64	.46	.40
852-4631	50X150A	150	50	N	.90	.72	.51	.45
852R4632	50X200	200	50	R	1.02	.82	.58	.51
852R4633	50X250A	250	50	AA	1.09	.87	.62	.54
852-4634	50X300	300	50	U	1.15	.92	.65	.57
852-4637	50X450	450	50	Y	1.33	1.07	.76	.66
852-4638	100X2	2	100	A	.52	.41	.29	.26
852-4639	100X5A	5	100	EE	.52	.41	.29	.26
852-4641	100X10	10	100	G	.71	.57	.40	.35
852-4644	100X25A	25	100	J	.80	.64	.46	.40
852-4646	100X50	50	100	T	1.08	.87	.62	.54
852-4648	150X1	1	150	A	.46	.37	.26	.23
852-4651	150X5A	5	150	EE	.68	.55	.39	.34
852-4653	150X10	10	150	H	1.15	.92	.77	.65
852-4655	150X20	20	150	L	.80	.64	.46	.40
852-4656	150X25	25	150	R	.96	.77	.55	.48

TYPE MTA AND MTV MOLDED ALUMINUM ELECTROLYTIC CAPACITORS

All welded construction; plastic insulated case. Feature moisture-tight seal. Type MTV has positive and uniform centering and spacing of leads. Operating temperature range: MTA, −30°C to +85°C; MTV, −30°C to +65°C continuous, 85°C intermittent. Tolerance: −10%, +100%.

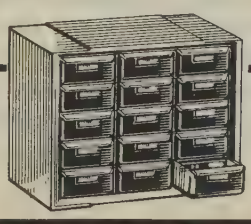


TYPE MTA

Stock No.	Mfr's Type MTA-	uF	WV DC	Size, In. Dia.xL	EACH 1-24	25-49	50-99	100-Up
852-2558	100E15	100	15	3/8X1	.48	.38	.33	.27
852-2578	350F15	360	15	1/2X1 3/8	.69	.54	.46	.40
852-2525	25D20	25	20	5/16X3/4	.44	.36	.30	.25
852-2542	50E25	50	25	3/8X1	.48	.38	.33	.27
852-6617	1000G25	1000	25	3/8X1 7/8	.98	.76	.67	.56
852-2516	10D35	10	35	5/16X3/4	.44	.36	.30	.25
852-2559	100F35	100	35	1/2X1 3/8	.61	.48	.41	.36
852-2501	1D50	1	50	5/16X3/4	.44	.36	.30	.25
852-2517	10D50	10	50	3/8X1	.48	.38	.33	.27
852-2554	80F50	80	50	1/2X1 3/8	.66	.52	.44	.38

TYPE MTV

Stock No.	Mfr's Type MTV	uF	WV DC	Size, In. Dia.xL	EACH 1-24	25-49	50-99	100-Up
852-3062	300DE10	300	10	1/2X1	.66	.52	.44	.38
852-3042	100CD15	100	15	3/8X15/16	.51	.40	.35	.29
852-3058	250DE15	250	15	1/2X1	.66	.52	.44	.38
852-3069	400DJ15	400	15	1/2X1 1/4	.72	.56	.50	.41
852-3074	500DN15	500	15	1/2X1 1/2	.72	.56	.50	.41
852-3020	50CD25	50	25	3/8X15/16	.51	.40	.35	.29
852-6699	100DB25	100	25	1/2X13/16	.54	.46	.40	.33
852-6702	250DJ25	250	25	1/2X1 1/4	.71	.55	.48	.41
852-6661	200DJ35	200	35	1/2X1 1/4	.71	.55	.48	.41
852-3006	5CB50	5	50	3/8X13/16	.48	.38	.33	.28
852-3009	10CB50	10	50	3/8X13/16	.51	.40	.35	.29
852-6680	100DE50	100	50	1/2X1	.71	.55	.48	.41



NEW!

CAPACITOR KITS
- Axial Leads Or Vertical Mount
- Molded Aluminum Electrolytics
- Save Off Regular "Each" Prices

MTA-15-1 AXIAL LEAD TYPES
This selection contains 53 axial lead molded aluminum electrolytic capacitors. Their ratings range from 500 microfarads at 6 WVDC to 80 microfarads at 50 WVDC. All meet the specifications shown above.
852-2600 ..... Each 26.60

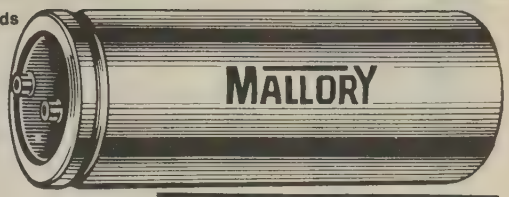
MTV 15-1 VERTICAL MOUNTS
An assortment of 48 high-quality but low-cost printed circuit MTV molded aluminum electrolytic capacitors. Includes two each of 24 popular MTV ratings from 750 microfarads at 6 WVDC to 100 microfarads at 50 WVDC.
852-3085 ..... Each 26.40

Specify Stock No., Mfr's Type and Capacitance When Ordering

Aluminum Tubular and Computer Grade Capacitors

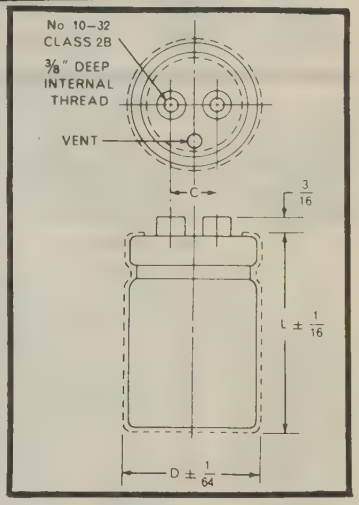
TYPE CGS AND CG COMPUTER-GRADE CAPACITORS

- Operating Life Exceeds Ten Years
- Wide Temperature Ranges
- Pressure-Sensitive Safety Vent
- Very Low ESR
- Low Leakage Current



Useful life expectancy of approximately ten years when operated within rated working volts DC, surge voltage, and ripple current as applied in computer type power supply circuitry where duty cycle and ambient temperature are more severe than standard. Tolerance: 0-150 working volts DC, −10%, +75%; 200 working volts DC and up, −10%, +75%. Pressure sensitive safety vent. 7/32" high terminal posts; 10-32 screws.

Although temperature range for both CGS and CG are as stated at left, tests have been conducted at 105°C and a voltage less than rated without incurring immediate catastrophic failure. These capacitors withstand six hours of vibration over a frequency range of 10 to 55 cps and return, traverse within a period of one minute with a maximum amplitude of vibrations of .03" (total excursion). See Index for VR mounting clamps. 3 oz.



TYPE CGS −40° TO +65°C ELECTROLYTICS

Stock No.	Type* CGS..3PH	uF	V DC	Max. AC Ripple	EACH 1-9	10-24	25-49	50-Up
852-0824	123U010R2C	12,000	10	3.4	3.17	2.65	2.18	1.95
852-1015	892U015R2C	8,900	15	3.5	3.17	2.65	2.18	1.95
852-0888	253U015R4C	25,000	15	5.9	4.63	3.83	3.19	2.85
852-0930	383U015V3C	38,000	15	9.0	5.87	4.26	3.56	3.17
852-0953	472U025R2C	4,700	25	3.3	3.17	2.65	2.18	1.95
852-0968	562U025BD1	5,600	25	3.6	3.68	3.18	2.55	2.22
852-1016	892U025R3C	8,900	25	4.6	3.83	3.17	2.65	2.36
852-0831	133U025R4C	13,000	25	5.5	4.63	3.83	3.19	2.85
852-0871	203U025V3C	20,000	25	8.4	5.87	4.26	3.55	3.17
852-0897	293U025V4C	29,000	25	10.0	7.45	6.17	5.15	4.58
852-0875	222U040BB1	2,200	40	2.6	3.29	2.63	2.10	1.84
852-0891	272U040R2C	2,700	40	2.9	3.17	2.63	2.18	1.95
852-0961	512U040R3C	5,100	40	4.0	3.83	3.17	2.65	2.36
852-0815	113U040V3C	11,000	40	7.2	6.14	4.46	3.72	3.32
852-0936	403U040X4C	40,000	40	14.8	14.02	11.24	7.98	6.97
852-0876	222U050R2C	2,200	50	3.0	3.17	2.63	2.18	1.79
852-0837	412U050R3C	4,100	50	4.1	3.83	3.17	2.64	2.36
852-0974	612U050R4C	6,100	50	4.9	4.63	3.83	3.19	2.85
852-0813	112U075R2C	1,100	75	2.5	3.32	2.75	2.28	2.04
852-0870	212U075R3C	2,100	75	3.4	3.83	3.17	2.64	2.36
852-0955	482U075V3C	4,800	75	6.0	5.87	4.26	3.56	3.17
852-0935	402U100DF1	4,000	100	5.7	8.48	7.23	5.78	6.06
852-0866	201T250BB1	200	250	1.3	3.04	2.61	2.08	1.82

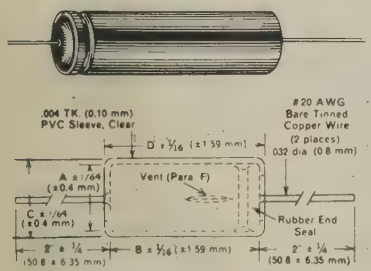
TYPE CG −40°C TO +85°C ELECTROLYTICS

Stock No.	Type* CG..3PH	uF	V DC	Max. AC Ripple	EACH 1-9	10-49	50-99	100-Up
852-0653	332U025R2C	3,300	25	1.8	3.05	2.44	2.03	1.73
852-0689	632U025R3C	6,300	25	2.5	3.67	2.55	2.09	1.84
852-0713	922U025R4C	9,200	25	3.1	4.37	2.99	2.45	2.20
852-0600	103U025U3C	10,000	26	3.4	4.35	3.48	2.90	2.31
852-0637	232U035R2C	2,300	35	1.7	3.05	2.44	2.04	1.73
852-0686	632U035R4C	6,300	35	2.8	4.38	2.99	2.45	2.20
852-0621	152U050R2C	1,500	50	1.6	3.04	2.09	1.70	1.44
852-0675	CG452U50D1	4,500	50	2.8	5.50	4.40	3.13	2.73
852-0676	502U050U3C	5,000	50	3.5	4.34	2.98	2.43	2.17
852-0712	952U050V4C	9,500	50	5.0	6.80	4.67	3.82	3.41
852-0640	223U050X4C	22,000	50	8.4	11.29	9.03	7.54	6.41
852-0619	152U075R3C	1,500	75	2.2	3.72	2.98	2.48	2.11
852-0674	492U075V4C	4,900	75	4.5	6.83	4.67	3.82	3.41
852-0665	402U100W4C	4,000	100	4.2	9.57	7.65	6.39	5.43
852-0508	13T200D1	1,000	200	2.7	7.17	5.73	4.79	4.07
852-0635	241T450D1	240	450	1.35	5.45	4.36	3.64	3.09

SIZE CODE TABLE (LAST 3 DIGITS IN TYPE NO.* INDICATE SIZE—SEE BELOW)

DIAMETERS—A	1⅜"	1¾"	2"	2½"	3"
LENGTHS—B All sizes in inches	B8, R2C 2⅛	U2C 2¼	V2C 2⅛	W3C 3¼	X3L 3¾
	R2L 2⅝	U2L 2⅝	V2L 2⅝	W3L 3⅝	X4C 4¼
	B1, BD, R3C 3⅛	U3C 3¼	V3C 3⅛	W4C 4¼	X4L 4⅝
	R3L 3⅝	U3L 3⅝	V3L 3⅝	W4L 4⅝	.....
	R4C 4¼	.....	D1, V4C 4⅛	W5C 5¼	.....
	R4L 4⅝	U4L 4⅝	V4L 4⅝	W5L 5⅝	X5R 5⅞
	R5C 5¼	U5C 5¼	V5C 5¼	.....	XCL 6⅝
	R5L 5⅝	U5L 5⅝	V5L 5¼	.....	X7L 7⅝
	.....	.....	.....	.....	X8L 8¾
TERM. SPACING—C	½"	⅞"	⅞"	1⅛"	1¼"

ALUMINUM TUBULAR COMPUTER GRADE CAPACITORS



Useful life expectancy of approximately ten years when operated within rated working volts DC, surge voltage and ripple current as applied in computer type power supply circuitry where duty cycle and ambient temperatures are more severe than standard. Low dissipation factor also insures long operating life. Shelf life approximately three years with storage temperatures not to exceed +40°C. Std. PVC insulating sleeve. Pressure sensitive safety vent. Positive welded connection between metal case and negative terminal for grounding.

SPECIFICATIONS: Operating Temperature Range: −40°C to +85°C. Tolerance: 3-75 WVDC −10%, +75%; 76-450 WVDC −10%, +50%. Reverse Voltage: Not to exceed 1.5 volts. DC Leakage Current: Will not exceed one milliampere at +25°C. Lead Strength: Will withstand a pull of 5 pounds axially for a period of 5 seconds. Will withstand four bends without breaking. These capacitors may be subjected, without permanent damage, to conditions in transit where the storage temperature may range from −65°C to +85°C and the altitude may be up to 200,000 feet.

SIZE CHART*

Last 3 letters and digit of Mfr's Type Number determine capacitor size.

Size Code	Dia (A)	Lgth. (B)
D0N	7/16	¼
D1G	7/16	1⅜
D1N	7/16	1¼
E1G	½	1⅜
G1L	⅝	1⅜
G2L	⅝	2⅛
J1L	¾	1⅜
J2L	¾	2⅛
L2C	⅞	2⅛
N1C	1	1⅛
N1L	1	1⅜
N2L	1	2⅛
N3C	1	3⅛
N3L	1	3⅜

Stock No.	Mfr's Type* TCG	Cap. uF	WV DC	†	EACH 1-24	25-49	50-99	100-Up
852-5167	402U015N1L	4000	15	954	2.86	2.29	1.91	1.62
852-5170	802U015N2L	8000	15	1,353	3.50	2.80	2.34	1.99
852-5173	103U015N3C	10000	15	1,670	3.50	2.80	2.34	1.99
852R5188	102U025N1C	1000	25	827	2.19	1.75	1.46	1.24
852-5190	222U025J2L	2200	25	962	2.69	2.15	1.80	1.53
852-5200	251U030D1G	250	30	239	1.85	1.48	1.24	1.05
852-5215	500U050D0N	50	50	114	1.77	1.41	1.18	1.00
852-5218	101U050E1G	100	50	175	1.80	1.44	1.20	1.02
852-5220	151U050D1G	150	50	199	1.85	1.48	1.24	1.05

Stock No.	Mfr's Type* TCG	Cap. uF	WV DC	†	EACH 1-24-49	25-99	50-Up	100-
852-5228	501U050G2L	500	50	445	2.19	1.77	1.46	1.25
852-5237	232U050N3C	2300	50	1,231	3.91	2.28	1.76	1.51
852-5239	252U050N3L	2500	50	1,381	3.91	2.28	1.76	1.51
852-5254	500T150D1N	50	150	171	1.91	1.53	1.27	1.08
852-5256	101T150J1L	100	150	328	2.41	1.41	1.09	.95
852-5259	251T150L2C	250	150	563	2.70	2.16	1.80	1.53
852-5270	201T250N3C	200	250	542	2.89	2.31	1.93	1.64
852-5290	100T450G1L	10	450	298	2.05	1.64	1.37	1.17
852-5295	200T450G2L	20	450	135	2.51	2.01	1.68	1.43

(†) Max. AC Ripple Current In mA at 120 Hz and 85°C.

FAMILY REFERENCE

MALLORY	SPRAGUE	CORNELL DUBLIER	ARCO
CG, CGS	36D	FAH	ARC

Allied offers fast, same-day shipment of industrial quantities at OEM price discounts. To assure the fastest and most accurate service, please specify manufacturer's type number and stock number on each order. Depend on Allied for prompt off-the-shelf delivery in industrial quantities larger than shown. See page 3 for complete list of Allied offices from coast-to-coast.

Write, Wire or Phone Allied Electronics for Larger Quantity Pricing

Computer Grade and Twist-Prong Electrolytics

Stock No.	Allied Type	Cap uF	WV DC	Case Dimensions D	L	F	EACH 1-9	10-24	25-49	50-up
710-0500	ARC15AC133	13,000	15	1⅜	4⅛	½	4.68	3.74	3.13	2.66
710-0501	ARC25AA272	2,700	25	1⅜	2⅛	½	3.33	1.66	2.22	1.89
710-0502	ARC25AC822	8,200	25	1⅜	4⅛	½	4.68	3.74	3.13	2.66
710-0503	ARC25BC183	18,000	25	2	4½	⅞	7.03	5.62	4.69	3.99
710-0504	ARC25CC323	32,000	25	2½	4⅛	1⅛	10.20	8.16	6.81	5.79
710-0505	ARC40AC552	5,500	40	1⅜	4⅛	½	4.68	3.74	3.13	2.66
710-0510	ARC40BC123	12,000	40	2	4½	⅞	7.03	5.62	4.69	3.99
710-0511	ARC40CD253	25,000	40	2½	4⅝	1⅛	11.28	9.02	7.53	6.40
710-0512	ARC50AA132	1,300	50	1⅜	2⅛	½	3.33	1.66	2.22	1.89
710-0513	ARC50BB63	6,000	50	2	3⅛	⅞	5.93	4.74	3.96	3.37
710-0514	ARC75AC252	2,500	75	1⅜	4⅛	½	5.08	4.06	3.39	2.88
710-0515	ARC75BB392	3,900	75	2	3⅛	⅞	6.20	4.96	4.14	3.52
710-0520	ARC75CD113	11,000	75	2½	4⅝	1⅛	13.58	10.86	9.07	7.72
710-0521	ARC100BC33	3,000	100	2	4½	⅞	7.80	6.24	5.21	4.43

ALLIED TYPE ARC 85° ELECTROLYTIC CAPACITORS

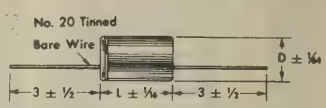
• Heavy Duty, Highly Reliable • Very High Capacitance Per Case • Low Leakage Current, Long Shelf-Life • Vinyl Sleeve • 100% Production Tested

Use anywhere heavy-duty electrolytic capacitors are needed. Stocked in ratings up to 32,000 μF. Operating temp. —40 to +85°C with very low leakage current. Skin-tight PVC sleeve voltage breakdown resistance over 3000V. Capacity tolerances at frequency of 120 Hz at 25°C: 5 to 50 WVDC, —10%, +100%; 51 to 450 WVDC, —10%, +75%.

TOLERANCE ON ALL DIMENSIONS ±.062

TYPE TC AND TCN TUBULAR ALUMINUM ELECTROLYTIC CAPACITORS

Especially designed for bypass and filtering applications. Clear plastic insulating sleeve permits positive identification of rating and polarity. Aluminum container offers small size. Type TC and TCN are single section metal tubulars with clear plastic insulating sleeve except those with the symbol (*) which have cardboard sleeving. The sizes listed below for capacitors without symbol are for bare unsleeved cans. Add .015" to the diameter and .062" to the length to allow for plastic sleeving. Dimensions for capacitors with symbol include the cardboard sleeve. Etched cathode construction is used for both Types TC and TCN to insure maximum reliability. Type TC's have 2" tinned leads. TCN's have 3" leads and are non-polar. Operating Temperature Range: —20°C to +85°C. Tolerance: —10% to +100% up to 350 WVDC; —10% to +50% for 351 WVDC and up.



TYPE TC (POLAR)

Stock No.	Mfr's Type TC-	Cap., μF	WV DC	Size, In. Dia.xL.	EACH 1-24	25-49	50-99	100-Up
854-9014	1501B	1000	15	½x1⅜	1.71	1.33	1.04	.84
854-9015	1520C	2000	15	⅝x1⅜	1.67	1.33	1.11	.95
854-9017	1540A	4000	15	⅞x1⅜	3.35	2.69	2.24	1.90
854-9019	22A	10	25	¼x⅝	.75	.54	.41	.38
854-9020	26C	25	25	¼x⅝	.75	.54	.41	.38
854-9021	29C	50	25	5/16x1 1/16	.70	.56	.46	.39
874-9022	1501B	100	25	⅜x¾	.87	.70	.58	.49
854-9024	2502SB	250	25	1/16x1	1.16	.93	.78	.66
854-9025	2505C	500	25	½x1⅜	1.60	1.28	1.07	.91
854-9026	2510A	1000	25	⅝x1½	2.46	1.46	1.28	1.15
854-9028	2520A	2000	25	1x2 1/16	2.25	1.80	1.50	1.29
854-9029	31	1	50	¼x⅝	.58	.46	.39	.33
854-9032	32C	10	50	¼x⅝	.63	.50	.42	.36

TYPE TC (POLAR)

Stock No.	Mfr's Type TC-	Cap., μF	WV DC	Size, In. Dia.xL.	EACH 1-24	25-49	50-99	100-Up
854-9033	36B	25	50	1/16x⅝	.67	.53	.44	.38
854-9034	39B	50	50	⅜x¾	.78	.63	.52	.44
854-9035	3501D	100	50	⅜x1⅛	1.04	.76	.59	.51
854-9036	50015C	150	50	½x1	.94	.75	.63	.53
854-9037	50025C	250	50	½x1¾	1.20	.96	.80	.68
854-9038	50050C	500	50	¾x1½	1.40	1.12	.94	.85
854-9039	50100C	1000	50	⅞x2⅝	1.81	1.44	1.21	1.03
854-9051	10500A	50	100	⅜x1¾	.92	.74	.61	.52
854-9052	10101B	100	100	¾x1¾	1.15	.92	.76	.65
854-9055	10501A	500	100	1x2⅝	1.91	1.52	1.27	1.08
874-9058	10102	1000	100	1x3⅜	2.28	1.82	1.52	1.29
854-9065	49A	50	150	⅝x1⅝	1.13	.90	.75	.64
854-9067	493B	100	150	¾x1⅝	1.38	1.10	.92	.78

TYPE TC (POLAR)

Stock No.	Mfr's Type TC-	Cap., μF	WV DC	Size, In. Dia.xL.	EACH 1-24	25-49	50-99	100-Up
854-9073	52A	10	250	⅜x1⅛	1.05	.84	.70	.60
854-9076	55B	20	250	¾x1⅛	1.20	.96	.80	.68
854-9079	59B	50	250	¾x1⅞	1.46	1.17	.97	.83
854-9080	1265B	100	250	⅞x2⅝	1.82	1.46	1.22	1.04
854-9095	697B	4	450	⅝x1⅛	1.02	.81	.68	.58
854-9101	75A	20	450	⅞x1⅝	1.35	1.08	.90	.76
854-9103	78A	40	450	1x2⅛	1.56	1.25	1.04	.89
854-9114	90A	4*	600	1 1/16x2⅝	2.15	1.72	1.43	1.22
854-9116	96A	20*	600	1 1/16x3	3.04	2.43	2.03	1.73

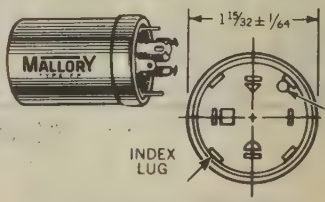
TYPE TCN (NON-POLAR)

Stock No.	Mfr's Type TC-	Cap., μF	WV DC	Size, In. Dia.xL.	EACH 1-24	25-49	50-99	100-Up
854-9125	N425A	100	25	1 1/16x1 5/16	1.25	1.00	.84	.71
854-9127	N502A	2	50	⅛x⅝	.85	.68	.57	.48
854-9131	N5010A	10	50	5/16x¾	.92	.73	.61	.52

STANDARD TWIST-PRONG ELECTROLYTIC CAPACITORS

Types FP, WP. Designed for filter, audio bypass and TV circuits. Precision engineered to insure stability under demanding conditions such as high ripple current, strong surge voltages and high temperatures (+85°C). Aluminum can surrounding capacitor is common negative. Both FP and WP types are constructed with etched plate anodes. All capacitors listed have standard twist-prong mounting lugs with solder terminals. Exclusive vent and seal designs make for better operation.

SPECIFICATIONS. Operating Temperature Range: —30°C to +85°C Tolerance: 3 to 50 WVDC —10%, +150%. 51 to 350 WVDC —10%, +100%. Over 350 WVDC —10%, +50%. Useful Operating Life: 5 years or more when operated within working voltage, surge voltage and ambient temperature specifications. Capacitors stamped with EIA code, date of manufacture, nominal capacitance, working DC voltage, designated part number and terminal designation. Capacitors supplied with insulating washer.

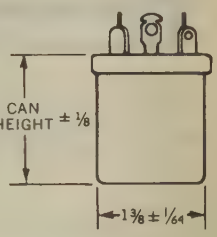


SIZE CODE—Dimensions In Inches

Size Code	Dia. x Lgth.	Size Code	Dia. x Lgth.	Size Code	Dia. x Lgth.	Size Code	Dia. x Lgth.
L	1x1 ½	C	1x2	F	1⅜x2	H	1⅜x3
B	1x1¾	D	1x2½	G	1⅜x2½		

SINGLE SECTION (FP, Except †WP)—Specify Stock No. and Type When Ordering

Stock No.	Mfr's Type	Cap. μF	WV DC	Size Code	EACH 1-9	10-24	25-49	50-Up
852-1513	060.6A	5000	25	H	7.95	6.36	3.75	3.00
852-7718	065†	500	50	F	1.67	1.34	1.12	.95
852-7720	066B†	500	50	B	1.67	1.34	1.12	.95
852-1515	066.5	1000	50	F	3.60	2.88	1.93	1.55
852-7723	068†	1500	50	H	3.24	2.59	2.16	1.84
852-1517	070A	2000	50	H	5.07	4.05	2.73	2.18
852-1552	146	40	450	C	2.28	1.82	1.23	.98
852-1555	149	80	450	G	3.30	2.64	1.78	1.42
852-1557	150A	100	450	H	3.63	2.90	1.94	1.56
852-1558	155A	125	450	H	4.12	3.30	2.22	1.78
852-1570	187A	90	500	H	4.02	3.05	2.04	1.74



DUAL SECTION (FP, Except †WP)—Specify Stock No. and Type When Ordering

Stock No.	Mfr's Type	Cap. μF	WV DC	Size Code	EACH 1-9	10-24	25-49	50-Up	Stock No.	Mfr's Type	Cap. μF	WV DC	Size Code	EACH 1-9	10-24	25-49	50-Up
852-7747	202.5A†	100-100	50	L	1.41	1.12	.94	.80	852-1592	217.74A	200-200	250	H	5.80	4.64	2.74	2.18
852-1606	221A	40-40	250	B	2.55	2.04	1.20	.96	852-1640	238A	40-40	450	G	3.55	2.84	1.84	1.53

TRIPLE SECTION—Specify Stock No. and FP Type When Ordering

Stock No.	Mfr's Type	Cap. μF	WV DC	Size Code	EACH 1-9	10-24	25-49	50-Up
852-1682	311.5A	40-40-40	150	B	2.63	2.10	1.24	.99

TYPE HC POLARIZED

Stock No.	Mfr's Type	μF	WV DC	Max. Ripple mA‡	Case No.	EACH 1-9	10-24	25-49	50-Up
852-2059	HC15010A	1000	150	1400	5	9.66	6.62	3.86	2.97
852-2063	HC20005A	500	200	1400	5	8.95	6.14	3.58	2.76
852-2077	HC45003†	300	450	.....	7	12.65	8.71	5.08	3.92

(‡) Max. permissible AC ripple at 120 Hz. For 60 Hz use 80% of number.

TYPE NP NON-POLARIZED

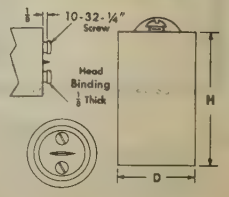
852-3516	NP3025	200	300	900	7	10.50	7.20	4.20	3.24

FAMILY REFERENCE

Mallory	Sprague	Cornell Dublier
TC	TVA	WBR

TYPES HC AND NP DRY ELECTROLYTICS

Plastic case with silicone rubber vent on type to maintain proper electrolyte level and prevent explosions. Operate at —20 to +85°C, where operation at ambient temperatures above 65°C is not expected to exceed 15% of total time. (†) For photoflash. Tolerances: Type NP, ±25%. Type HC: 150 and 200 WVDC, —10% to +100%; 450 WVDC, —10% to +50%. Av. shpg. wt. 1 lb.



Screw terminals, mounting clamps listed elsewhere in this section.

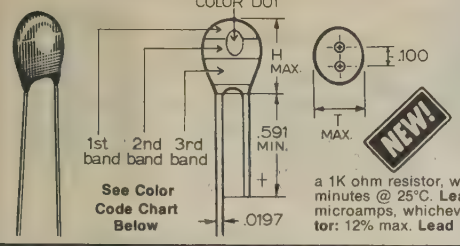
CASE SIZES

Case No.	Size, Inches Dia.	Height	Terminals
5	1 13/16	4⅜	10-32x¼" screw
7	2 1/16	4⅜	10-32x¼" screw

Specify Stock No., Mfr's Type and Capacitance When Ordering

Solid Electrolyte Tantalum Capacitors

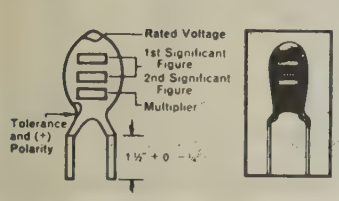
DP DIPPED SOLID TANTALUM ELECTROLYTIC CAPACITORS



Resin dipped, polarized solid tantalum with tinned radial leads. Feature long shelf life, capacity stability, low DC leakage and dissipation factor. **Operating Temperature:** −55°C to +85°C. **Voltage Range:** 10 VDC to 35 VDC. **Capacitance:** 0.1MFD to 100MFD. **Tolerance:** ±20%. Current is measured through a 1K ohm resistor, with rated voltage applied for 3 minutes @ 25°C. **Leakage Current:** 0.04 CxV or 2 microamps, whichever is greater. **Dissipation factor:** 12% max. **Lead Diameter:** .0197".

Stock No.	Mfr's Type	WVDC	MFD	EACH 1-24	25-49	50-99	100-Up
623-0645	DP 47M10	10	47	.55	.44	.37	.31
623-0650	DP 100M10	10	100	1.25	1.00	.83	.71
623-0640	DP 22M16	16	22	.45	.36	.30	.26
623-0630	DP 6R8M25	25	6.8	.38	.30	.25	.22
623-0635	DP 10M25	25	10	.48	.38	.32	.27
623-0600	DP R1M35	35	.1	.26	.20	.17	.14
623-0601	DP R22M35	35	.22	.26	.20	.17	.14
623-0602	DP R33M35	35	.33	.26	.20	.17	.14
623-0603	DP R47M35	35	.47	.26	.20	.17	.14
623-0604	DP R68M35	35	.68	.26	.20	.17	.14
623-0610	DP 1R0M35	35	1.0	.26	.20	.17	.14
623-0611	DP 1R5M35	35	1.5	.28	.22	.19	.16
623-0614	DP 2R2M35	35	2.2	.33	.26	.22	.18
623-0622	DP 3R3M35	35	3.3	.33	.26	.22	.18
623-0624	DP 4R7M35	35	4.7	.41	.33	.27	.23

TDC DIPPED SOLID TANTALUM CAPACITORS



Case Sizes E & F
Color Code Marking Instructions

Case Sizes G & H
Color Code Marking Instructions

TDC tantalums have a hard, dip coated epoxy coating and are supplied with tinned nickel radial leads. TDC's exhibit the same long shelf life and performance as other solid tantalum capacitors and are ideally suited for use in industrial, commercial and entertainment electronics.

- **Low Cost**
- **Radial Leads**
- **±20% Tolerance**
- **Space Saving**

TABLE A

CAPACITANCE AND VOLTAGE COLOR CODE

Color	1st Significant Figure	2nd Significant Figure	Multiplier@+85°C	Rated Volts
Black	0	0	.....	..
Brown	1	1	.....	6
Red	2	2	100	10
Orange	3	3	1000	15
Yellow	4	4	10000	20
Green	5	5	100000	25
Blue	6	6	1000000	35
Violet	7	7	10000000	50
Grey	8	8	100000000	..
White	9		.....	4

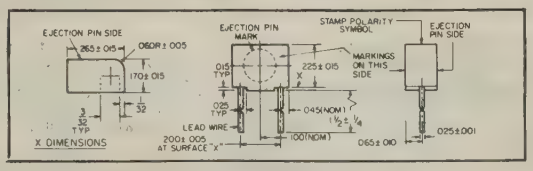
DIMENSIONS

Case Size	Dimensions in Inches (Max.) Dia.	Ht.	Lead Dia. In Inches (±.002)	Lead Spacing (±.015)	Case Markings
E	.175	.350	.020 (#24AWG)	.250	Color Coded
F	.250	.500	.020 (#24AWG)	.250	
G	.350	.650	.025 (#22AWG)	.250	Stamped Capacity,
H	.400	.750	.025 (#22AWG)	.250	Voltage & Tolerance

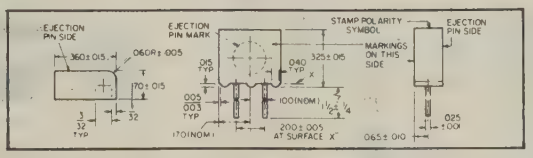
Stock No.	Mfr's Type	Cap. uF	WVDC @85°C	Case Size	EACH 1-24	25-49	50-99	100-Up
852-5651	TDC685M006EL	6.8	6	E	.37	.30	.25	.21
852-5655	TDC475M010EL	4.7	10	E	.37	.30	.25	.21
852-5656	TDC336M010FL	33	10	F	.49	.39	.33	.28
852-5657	TDC107M010GL	100	10	G	.99	.80	.66	.56
852-5660	TDC226M015FL	22	15	F	.49	.39	.33	.28
852-5663	TDC225M020EL	2.2	20	E	.37	.30	.25	.21
852-5664	TDC156M020FL	15	20	F	.49	.39	.33	.28
852-5666	TDC476M020GL	47	20	G	.99	.80	.66	.56
852-5668	TDC107M020HL	100	20	H	1.77	1.42	1.18	1.01
852-5669	TDC685M025FL	6.8	25	F	.41	.33	.28	.23
852R5670	TDC106M025FL	10	25	F	.49	.39	.33	.29
852-5671	TDC226M025GL	22	25	G	.99	.79	.66	.56
852R5674	TDC105M035EL	1	35	E	.37	.30	.25	.21
852-5676	TDC225M035FL	2.2	35	F	.41	.33	.28	.23
852-5678	TDC475M035FL	4.7	35	F	.41	.33	.28	.23
852-5679	TDC685M035FL	6.8	35	F	.41	.33	.28	.23
852-5680	TDC106M035FL	10	35	F	.99	.79	.66	.56
852-5682	TDC226M035GL	22	35	G	1.09	.87	.72	.62
852-5684	TDC476M035HL	47	35	H	1.77	1.42	1.18	1.01
852-5685	TDC104M050EL	.10	50	E	.52	.42	.35	.30
852-5688	TDC334M050EL	.33	50	E	.52	.42	.35	.30
852-5689	TDC474M050EL	.47	50	E	.52	.42	.35	.30
852-5690	TDC684M050EL	.68	50	E	.52	.42	.35	.30
852-5691	TDC105M050EL	1.0	50	E	.52	.42	.35	.30

TIM AND TAC SERIES MOLDED SOLID TANTALUM CAPACITORS

TIM CASE SIZE X



TIM CASE SIZE Y



TIM SERIES

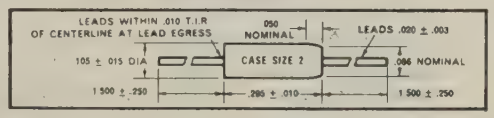
• −55°C to +85°C

- **Ultra-miniature**
- **Molded Epoxy Case**
- **High Stability**
- **Uniform Size**
- **±10% Tolerance**

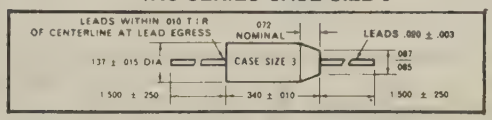
Ultra-miniature tantalum capacitors in molded epoxy case with tinned nickel radial leads, precisely positioned for PC board mounting. High stability, long shelf life, excellent performance in severe environments. Uniform size for automatic assembly. **Temperature Range:** −55°C to +85°C. **Tolerance:** ±10%. **Lead spacing:** .200". Av. shpg. wt. 2 oz.

Stock No.	Type TIM-	Cap., uF	WV DC	Code*
852-6409	105K035P0X	1 0	35	A
852-6526	685K035P0Y	6 8	35	B
852-6414	106K035P0Y	10	35	C

TAC SERIES CASE SIZE 2



TAC SERIES CASE SIZE 3



High-reliability axial-lead capacitors in precision-molded epoxy case. Their uniform molded construction provides excellent performance in severe environments. Features include highly stable electrical characteristics, exceptionally long shelf life, excellent environmental protection. **Temperature Range:** −55°C to +85°C. **Tol.:** ±10%. **Av. shpg. wt.:** 1/10 oz.

TAC SERIES

• **Axial Lead Capacitor**

Stock No.	Type TAC-	Cap., uF	WV DC	Case Code*
852-5431	685K010P02	6.8	10	4
852-5303	105K202P02	1.0	20	2
852-5349	225K020P02	2.2	20	2

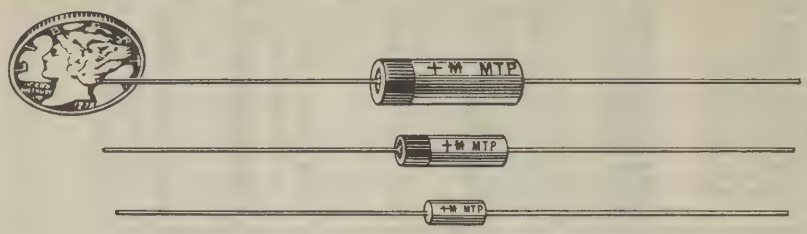
• **Molded Epoxy Case**

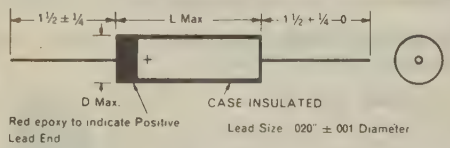
Stock No.	Type TAC-	Cap., uF	WV DC	Case Code*
852-5407	475K035P04	4 7	35	3
852-5302	104K050P02	1	50	4
852-5305	105K050P03	1.0	50	3

Type	Price & Size Code*	Tolerance	Size, Inches	EACH 1-9	10-24	25-49	50-Up
TIM	A	±10%	.225 x .285 x .170	1.29	1.03	.86	.73
	B	±10%	.335 x .360 x .170	1.33	1.07	.89	.76
	C	±10%	.335 x .360 x .170	2.48	1.99	1.66	1.41
TAC	2	±10%	.105 dia. x .295	.93	.74	.62	.53
	3	±10%	.137 dia. x .340	.97	.78	.63	.55
	4	±10%	.137 dia. x .340	.93	.74	.62	.53

Military Capacitors

TYPE MTP ULTRAMINIATURE TANTALUM CAPACITORS





- **Highest Capacity — Voltage Product**
- **Ideal for Miniature Circuits**
- **Low Profile Geometry Compatible With Microelectronics**
- **−55° to +85C° Operating Temp.**
- **+20% Tolerance**
- **Long Storage Life**

This sintered tantalum anode polar capacitor offers higher capacity-voltage than ordinary wet slug, solid or foil tantalum capacitors. Meets or exceeds **MIL-STD-202** for higher frequency vibration, shock, temperature and immersion cycling, moisture resistance and sleeving dielectric strength and insulation resistance. Silver case, closed on elastomer end seals. The anode lead weld is protected by epoxy resin encapsulation, with outer insulating sleeve covering entire unit.

PRICE AND SIZE LOCATOR

Case Size† Code	Diameter x Length Inches	EACH 1-9	10-24	25-49	50-Up
A	.115x.400	2.80	2.24	1.87	1.59
B	.115x.400	3.22	2.62	2.29	1.97
C	.145x.590	3.40	2.72	2.27	1.93
D	.225x.775	3.93	3.14	2.62	2.23
E	.225x.775	4.31	3.50	3.05	2.62
F	.115x.312	3.04	2.48	2.16	1.85

Stock No.	Mfr's Type MTP-	Cap., µF	WVDC @ 85°C	Max. D.C.L. at Max. WVDC in µA +25°C	+85°C	Max. DF @ 25°C	† Code
852-2785	477M086P1C	470	6	2.0	10.0	50	D
852-2713	107M101P1B	100	10	2.0	8.0	33	C
852-2765	337M101P1C	330	10	2.0	10.0	35	D
852-2744	226M015P1A	22	15	2.0	6.0	33	A
852-2749	227M015P1C	220	15	2.0	10.0	30	D
852-2781	476M020P1B	47	20	2.0	8.0	25	C
852-2735	157M020P1C	150	20	2.0	10.0	30	D
852-2770	456M030P1B	45	30	2.0	8.0	25	C
852-2775	475M035P1D	4.7	35	2.0	6.0	20	F
852-2708	106M035P1A	10	35	2.0	6.0	20	B
852-2716	107M035P1C	100	35	2.0	10.0	25	E
852-2804	685M060P1A	6.8	60	2.0	6.0	20	A
852-2747	226M060P1B	22	60	2.0	8.0	20	C

MIL TYPE CSR13 PLASTIC INSULATING SLEEVE

Stock No.	Type CSR13-	Cap., µF	WV DC	Leak. µA*	Case Size
852-4166	C227KM	220	10	20.0	D
852-4168	D335KM	3.3	15	0.8	A
852-4169	D186KM	18	15	3.5	B
852-4170	D226KM	22	15	4.0	B
852-4172	D686KM	68	15	10.0	C
852-4175	E125KM	1.2	20	0.6	A
852-4178	E225KM	2.2	20	0.8	A
852-4180	E106KM	10	20	...	B-1
852-4400	E156KM	15	20	4.0	B
852-4184	E336KM	33	20	7.0	C
852-4186	E476KM	47	20	9.0	C
852-4189	E107KM	100	20	...	D
852-4191	F685KM	6.8	35	3.0	B-2
852-4192	F226KM	22	35	8.0	C
852-4196	F476KM	47	35	16.0	D
852-4204	G473KM	.047	50	0.5	A-1
852-4379	G224KM	.22	50	0.5	A-2
852-4208	G334KM	.33	50	0.5	A-1
852-4211	G105KM	1	50	...	A-3
852-4219	G475KM	4.7	50	3.5	B-3

CSR13 1% (M) FAILURE RATE PRICE AND SIZE LOCATOR

Case Size	Dia. x Length (Inches)	EACH 1-49	50-99	100-999	1000-Up
A	.135x.286	.95	.55	.47	.40
A-1	.135x.286	1.00	.60	.53	.45
A-2	.135x.286	1.51	.88	.75	.63
A-3	.135x.286	.95	.55	.47	.40
B	.185x.474	1.05	.62	.53	.44
B-1	.185x.474	1.00	.60	.53	.45
B-2	.185x.474	1.07	.63	.54	.45
B-3	.185x.474	1.01	.67	.58	.49
C	.289x.686	1.50	1.20	1.00	.85
D	.351x.786	2.75	2.20	1.84	1.56

- **Subminiature Hermetically Sealed Units**
- **Temperature Rating: −55°C to +251°C**
- **2000 Cycle Vibration Test, 50g Shock Test**
- **Life Test: 10,000 Hours**

Subminiature hermetically sealed units meet **MIL-C-39003/1A** specifications. Life test: 10,000 hours. Tighter leakage current and dissipation factor over **MIL-C-26655B.** Low impedance above 1 MHz. 2000-cycle vibration test, 50g shock test. Temperature rating, −55° to +125°C.
See Ordering Information Note Below.

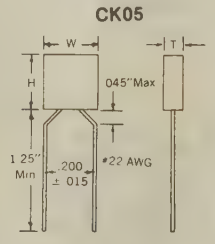
NOTE: For size and price of capacitors, see Case Size code in listings, then refer to that listing in tables at left.

NEW!

MIL-C-11015 CERAMIC CAPACITORS

- **Designed, Manufactured and Tested to Meet the Requirements of MIL-C-11015**
- **Capacitance Tolerance: ±10%**
- **Available in Capacitances from 10 to 1,000,000 pF**

CK05



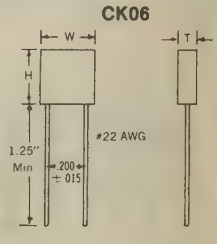
CK05

H = .190 ±.010
W = .190 ±.010
T = .090 ±.010

CK06

H = .290 ±.010
W = .290 ±.010
T = .090 ±.010

CK06



Stock No.	Mfr's Type	Cap., pF	WV DC	EACH 1-24	25-49	50-99	100-Up
980-1001	CK05BX100K	10	200	.40	.32	.27	.23
980-1006	CK05BX220K	22	200	.40	.32	.27	.23
980-1008	CK05BX270K	27	200	.40	.32	.27	.23
980-1009	CK05BX330K	33	200	.40	.32	.27	.23
980-1012	CK05BX470K	47	200	.40	.32	.27	.23
980-1018	CK05BX101K	100	200	.40	.32	.27	.23
980-1024	CK05BX221K	220	200	.40	.32	.27	.23
980-1027	CK05BX331K	330	200	.40	.32	.27	.23
980-1031	CK05BX471K	470	200	.40	.32	.27	.23
980-1037	CK05BX102K	1K	200	.40	.32	.27	.23
980-1042	CK05BX222K	2.2K	100	.40	.32	.27	.23
980-1043	CK05BX272K	2.7K	100	.40	.32	.27	.23
980-1045	CK05BX332K	3.3K	100	.40	.32	.27	.23
980-1046	CK05BX392K	3.9K	100	.40	.32	.27	.23
980-1047	CK05BX472K	4.7K	100	.40	.32	.27	.23
980-1048	CK05BX682K	6.8K	100	.44	.35	.29	.25
980-1054	CK05BX103K	10K	100	.55	.44	.37	.31
980-1056	CK05BX223K	22K	50	.55	.44	.37	.31
980-1057	CK05BX333K	33K	50	.70	.56	.47	.40
980-1058	CK05BX473K	47K	50	.70	.56	.47	.40

Stock No.	Mfr's Type	Cap., pF	WV DC	EACH 1-24	25-49	50-99	100-Up
980-1055	CK05BX104K	100K	50	1.05	.84	.70	.60
980-1072	CK06BX222K	22K	200	.48	.38	.32	.27
980-1073	CK06BX272K	27K	200	.48	.38	.32	.27
980-1074	CK06BX332K	3.3K	200	.48	.38	.32	.27
980-1075	CK06BX472K	4.7K	200	.48	.38	.32	.27
980-1080	CK06BX682K	6.8K	200	.49	.39	.33	.28
980-1081	CK06BX103K	10K	200	.49	.39	.33	.28
980-1082	CK06BX153K	15K	100	.60	.48	.40	.34
980-1083	CK06BX223K	22K	100	.60	.48	.40	.34
980-1084	CK06BX273K	27K	100	.60	.48	.40	.34
980-1085	CK06BX333K	33K	100	.78	.62	.52	.44
980-1090	CK06BX473K	47K	100	.78	.62	.52	.44
980-1091	CK06BX683K	68K	100	.90	.70	.60	.51
980-1092	CK06BX104K	100K	100	.95	.76	.63	.54
980-1093	CK06BX154K	150K	50	1.45	1.16	.97	.82
980-1094	CK06BX224K	220K	50	1.70	1.36	1.14	.97
980-1095	CK06BX274K	270K	50	2.43	1.94	1.62	1.38
980-1100	CK06BX334K	330K	50	2.43	1.94	1.62	1.38
980-1101	CK06BX474K	470K	50	3.58	2.86	2.39	2.03
980-1102	CK06BX684K	680K	50	5.25	4.20	3.51	2.98

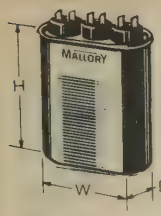
FAMILY REFERENCE

Mallory/ Sprague	Sprague	Mallory
CSR, CS	150D	TAS

NOTE: Allied is now stocking the CSR13 1% (M) level to be substituted for larger fail rate levels and is fully approved as a military substitution capacitor.

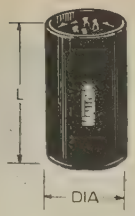
Larger Quantity Price Breaks Available on Request

Motor Capacitors, Trimmers, Padders, Mounting Hardware



TYPE OP

- Metal Encased
- Oil Impregnated Terminals
- Flash Guards
- ±10% Tolerance
- Quick Disconnect



TYPE PSU

- Non-Polarized
- Round Cases
- Moisture Resistant
- Oil Resistant
- Quick Disconnect Terminals

TYPE OP CONTINUOUS RUN

Features include metal cases for max. environmental protection and quick-disconnect terminals with flash guards for easy access. Impregnated with non-flammable, high quality oil. Tolerance: ±10%. Operating Temp. Range: −30°C to 70°C. Type OP has an oval case. Type OPR, rectangular. AC volts 370, except * 440. Capacitance (uF) in descending order is 3, 4, 5, 6, 10, 20, 30, 40, 45. Shpg. wt. 8 oz.

Stock No. (852-)	Mfr's Type (OP)	Size D x L x W (Inches)	EACH 1-9	EACH 10-Up
4130	370	$1^{5}/_{16}$x$2^{5}/_{32}$x$2^{1}/_{16}$	3.22	2.58
4132	470	$1^{5}/_{16}$x$2^{5}/_{32}$x$2^{9}/_{16}$	3.57	2.85
4133	570	$1^{5}/_{16}$x$2^{5}/_{32}$x$2^{7}/_{8}$	4.05	3.24
4135	670	$1^{5}/_{16}$x$2^{5}/_{32}$x$1^{1}/_{8}$	4.46	3.56
4138	1070	$2^{5}/_{32}$x$2^{27}/_{32}$x$3^{1}/_{32}$	5.11	4.60
4148	2070	$2^{5}/_{32}$x$2^{27}/_{32}$x$4^{21}/_{32}$	10.81	8.65
4182	3040	$1^{31}/_{32}$x$3^{21}/_{32}$x8	18.17	14.54
4171	4040	$1^{31}/_{32}$x$3^{21}/_{32}$x$9^{1}/_{2}$	17.27	13.75
4209	R4540	$2^{27}/_{32}$x$4^{9}/_{16}$x$6^{1}/_{4}$	28.46	22.77

TYPE PSU MOTOR START

Non-polarized dry electrolytic capacitors designed for intermittent duty in AC motor starting circuits. Housed in round, molded plastic cases for above average oil and moisture resistance. Mounting, two quick disconnect terminals on the underside. Each supplied with two PSUA terminal adaptors for applications requiring solder or screw type connection. May also be mounted by plastic end cap, metal snap-in bracket or clamp-bracket — not supplied. AC volts 110-125. Size $1^{7}/_{16}$ x $2^{3}/_{4}$" except (*) is $1^{13}/_{16}$ x $3^{3}/_{8}$".

Stock No.	Mfr's Type	Cap uF	EACH 1-9	EACH 10-Up
852-4035	PSU10815	108-130	1.89	1.51
852-4043	PSU16115	161-193	2.25	1.80
852-4045	PSU18915	189-227	2.64	2.11
852-4054	PSU27015	270-324	3.30	2.64
852-4064	PSU40015	400-480	4.08	3.26

DIELECTRIC GLASS-ENCASED CAPACITORS

Impregnated with mineral oil. Operate 10,000 hours at 85°C at rated voltage. **Operating Temperature Range:** −55 to +85°C; derate 60% at 105°C. Meet or exceed **MIL-C-25D** specifications, except for high altitude flashover. **Capacitance tolerance:** ±10%. **Mounting terminals** are 8-32x$^{3}/_{4}$-in. long for diameters or larger; smaller units have #18 tinned copper axial pigtails. Hard glass pillar container. Available in 2000 to 10,000 WVDC.

2000 WVDC Av. shpg. wt. 4 oz

Stock No.	Mfr's Type	Cap µF	Size (Dia. x L.)	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
884-0406	OF-20-104	.1	$^{3}/_{4}$x$2^{1}/_{4}$	10.40	8.32	6.95	5.91
884-0414	OF-20-254	.25	$^{29}/_{32}$x$2^{1}/_{4}$	12.13	9.70	8.10	6.89
884-0422	OF-20-504	.5	$1^{3}/_{4}$x2	15.25	12.20	10.19	8.66

3000 WVDC Av. shpg. wt., 6 oz.

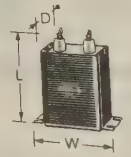
884-0446	OF-30-503	05	$^{3}/_{4}$x$2^{1}/_{4}$	9.98	7.98	6.66	5.67
884-0434	OF-30-104	.1	$1^{1}/_{8}$x$1^{3}/_{4}$	12.58	10.06	8.40	7.14

5000 WVDC Av. shpg. wt., 8 oz.

884-0464	OF-50-103	.01	$^{3}/_{4}$x$1^{3}/_{14}$	11.65	9.32	7.78	6.62
884-0484	OF-50-503	.05	$^{29}/_{32}$x$2^{1}/_{4}$	15.60	10.48	10.42	8.82

10,000 WVDC Av. shpg. wt., $1^{1}/_{2}$ lbs

884-0535	OF-100-103	01	$^{29}/_{32}$x$2^{1}/_{4}$	13.35	11.10	8.90	7.45
884-0547	OF-100-203	.02	$1^{1}/_{8}$x$2^{3}/_{4}$	14.50	11.60	9.70	8.50



HIGH VOLTAGE FILTER CAPACITORS

Available in two Working Volts D.C. ratings—3000 WVDC and 5000 WVDC. Smaller than the comparable CP-70 style. Operating Temperature Range: −50°C to +65°C for 10,000 hours. Meets **MIL-C-25D** dielectric resistance specification. Capacitance Tolerance: −10% to +20%. Footed brackets, nuts and solder lugs on terminals.

3000 WVDC

Stock No.	Mfr's Type	Cap µF	Size Inches	Shpg. Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-Up
884-0015	EP-30-105	1 0	$2^{1}/_{4}$x$1^{1}/_{16}$x$3^{1}/_{4}$	4	14.08	11.80	11.21
884-0021	EP-30-405	4 0	$3^{1}/_{4}$x$2^{1}/_{4}$x$4^{1}/_{4}$	7	29.51	24.73	23.50

5000 WVDC

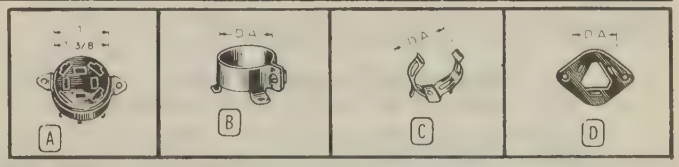
884-0044	EP-50-504	.5	$2^{1}/_{2}$x$1^{3}/_{16}$x4	4	13.48	11.29	10.73

A NOTE ON MOTOR START CAPACITORS

Motor start capacitors are in the circuit only during the starting period of the motor. When the motor reaches a predetermined speed, the capacitor is disconnected from the circuit and the motor runs as an induction motor. Use the next larger capacitor if unsure of proper size.

CAPACITOR MOUNTING HARDWARE

Choose from our large selection of mounting hardware for capacitors subject to moderate or acute vibration. Hold capacitors securely in position regardless of applications. Straps are constructed of rugged tinned steel. Others are cadmium plated steel. Suitable for a wide variety of military, industrial and commercial applications. Av. shpg. wt: 1 oz.



(A) MOUNTING SOCKETS

For Mallory FP type capactors. Permit instant replacement. Molded from black bakelite. Recessed center contacts for extended prongs. Also take short prongs.

Stock No.	Mfr's Type	Size In.	EACH 1-99	EACH 100-Up
750-0816	2C5	1	.93	.74
750-0817	2C7	1⅜	1.33	1.06

(B) MOUNTING RINGS (Wt., 1 oz.)

Stock No.	Dia. Size (In.)	EACH 1-99	EACH 100-999	EACH 1000-Up
852-7530	1-1⅛	.53	.42	.30
852R7532	1⅛-1⅜	.57	.45	.32
852-7533	1⅛-1⅜	.57	.45	.32
852-7535	1¾-1$^{13}/_{16}$	.60	.48	.35
852R7536	2-2⅛	.68	.54	.39
852-7538	2½-2$^{5}/_{8}$	.72	.57	.41
852R7540	3	.83	.66	.47

(C) UNIVERSAL CLAMPS (Wt., 1 oz.)

Stock No.	Dia. Size (In.)	EACH 1-99	EACH 100-999	EACH 1000-Up
852-6010	⅜-$^{7}/_{16}$	.15	.10	.08
852-6012	½-$^{9}/_{16}$	.15	.10	.08
852-6014	$^{5}/_{8}$-$^{11}/_{16}$	.15	.10	.08
852-6016	$^{3}/_{4}$-$^{13}/_{16}$	.15	.10	.08
852-6018	$^{7}/_{8}$-$^{15}/_{16}$	.15	.10	.08
852-6020	1-1$^{1}/_{16}$	.15	.10	.08
852-6022	1⅛-1	.15	.10	.08
852-6021	1⅛-1$^{7}/_{16}$	.22	.18	.13

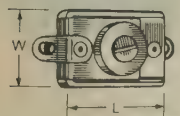
(D) MOUNTING PLATES

Standard mounting plates for mounting "Twist-Prong" capacitors. * Phenolic. † Metal. Av. shpg. wt. 1 oz.

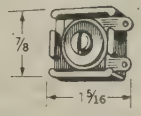
Stock No.	Size In.	Stock No.	Size In.
852-0305	1*	852-2440	1†
852-0307	1⅜*	852-2442	1⅜†

1-99 Ea. .22 100-999 Ea. .17 1000-Up Ea. .15

TRIMMERS, PADDERS



TRIMMER



PADDER

Wide selection of trimmers and padders for new equipment and replacement purposes. Ceramic base. Clear India mica dielectric. High resistance to humidity. Resilient phosphor bronze adjusting plates. Trimmers are rated 35 VDC test or 175 WVDC. Padders are rated 500 VDC test or 250 WVDC. Three turns from open to tight setting. Shpg. wt. 2 oz.

TYPE 40 MIDGET TRIMMERS ⅜" x $^{9}/_{16}$"

Stock No.	Mfr's Type	pF Min.-Max.	EACH 1-24	EACH 25-99	EACH 100-Up
782-0402	402	1.5-20	.55	.44	.31
782-0403	403	4-40	.67	.54	.38
782-0404	404	7-60	.82	.66	.46

TYPE 42 MIDGET TRIMMERS ⅜" x ¾"

Stock No.	Mfr's Type	pF Min.-Max.	EACH 1-24	EACH 25-99	EACH 100-Up
782-3760	420	1-12	.60	.48	.35
782-3761	421	2-25	.55	.44	.35
782-3762	422	4-40	.55	.44	.35
782-3763	423	7-100	.65	.52	.40
782-3764	424	16-150	.80	.64	.47
782-3765	425	24-200	.90	.72	.54

TYPE 30 PADDERS ⅞" x $^{15}/_{16}$"

Stock No.	Mfr's Type	pF Min.-Max.	EACH 1-24	EACH 25-99	EACH 100-Up
782-0302	302	15-130	1.48	1.18	.99
782-0303	303	65-340	1.70	1.36	1.14
782-0304	304	115-550	1.70	1.36	1.14
782-0305	305	190-760	1.83	1.46	1.22

TYPE 46 STANDARD TRIMMERS ¾" x ⅝"

Stock No.	Mfr's Type	pF Min.-Max.	EACH 1-24	EACH 25-99	EACH 100-Up
782-3786	461	2.7-40	.70	.56	.47
782-3787	462	5-80	.70	.56	.47
782-3788	463	9-180	.70	.56	.47
782-3789	464	25-280	.80	.64	.53

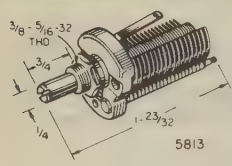
FAMILY REPLACEMENT

Mallory Type	Sprague Type	Cornell Dublier
PSU	AB	ETW

REPLACEMENT NOTE: Manufacturer's Series shown in table at left are all interchangable. Substitute any one series with another with the confidence that specifications are identical. Depend on Allied Electronics to stock in depth the latest capacitors by leading manufacturers. **Specify Stock Number, Manufacturer's Type Number and Capacitance for prompt shipment of all your capacitor needs.**

Trimmer Capacitors and RFI Power Line Filters

MODEL APC TRIMMERS

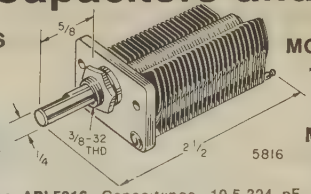


MODEL APC TRIMMERS

Type APC-5813. Capacitance, 7-29.2 pF. Shaft, 1/4", extends 3/4". Thread, 3/16-32. Breakdown, 1000 VRMS. L., 2 3/32".
Type APC-5815. Capacitance, 7.2-151 pF. Shaft, 1/4", extends 7/32". Mounting posts 3/32" long. Breakdown, 500 VRMS. L., 2 5/32".

Stock No.	Type APC-	Cap. pF	EACH 1-9	10-49	50-Up
695-2200	5813	7-29.2	4.76	3.97	3.38
695-2300	5815	7.2-151	4.88	4.08	3.46

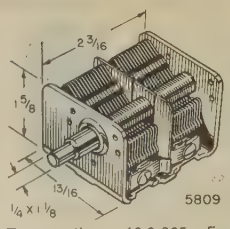
MODEL APL TRIMMERS



Type APL5816. Capacitance, 10.5-324 pF. Plates, 39. Shaft, 1/4", extends 5/8". L., 2 1/2".
Type APL5817. Capacitance, 5-56.8 pF. Plates, 13. Shaft, 1/4", extends 5/8". L., 1 25/32".
Type APL5818. Capacitance, 8.7-114.9 pF. Plates, 26. Locking bearing construction. Shaft, 1/4", extends 35/64". L., 2 23/64".

Stock No.	Type APL-	Cap., pF	EACH 1-9	10-49	50-Up
695-3300	5816	10.5-324	4.92	4.11	3.49
695-3100	5817	5-56.8	3.42	2.86	2.43
695-3200	5818	8.7-114.9	4.48	3.74	3.18
695-3400	5819	97.5-106.2	4.02	3.36	2.85
695-3500	5820	139.8-145.9	3.54	2.96	2.51

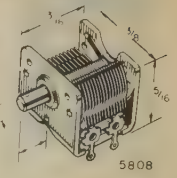
MODEL S2, S3 TRIMMERS



Type S2-5809. Two sections, 10.3-365 pF each section. Shaft 1/4", 1 1/8" long. Has 12 PF trimmer each section. CCW rotation. Three 6-32 mtg. holes. 2 3/16 x 1 13/16 x 1 5/8" h.
Type S3-5810. Three sections, 12.5-432 pF each section. Shaft 1/4", 1 1/8" long. Has 12 pF trimmer each section. Three mtg. holes. 3 3/16 x 1 13/16 x 1 5/8".

Stock No.	Mfr's Type	Cap., pF	EACH 1-24	25-99	100-Up
695-4100	S2-5809	10.3-365	6.08	5.08	4.32
695-4200	S3-5810	12.5-432	10.24	8.55	7.27

N50 SINGLE SECTION CAPACITOR

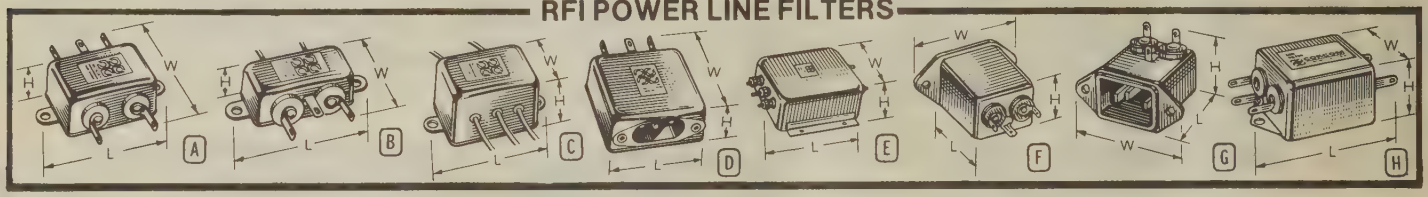


- Very High Capacitance, Small Frame
- MIL-D-3115 Insulation

Excellent for use in AM radios, test equipment, kit building. Capacitance, 16.0 to 365 pF. Capacitance increases with counter-clockwise rotation. Shaft, 1/4" dia., 1" long. Front and rear frame tapped #6-32, 3 places, 120° apart for mounting. Has 33 plates. Size, 1 9/16 x 1 3/8 x 1 3/16" high. Available in lower pF values.

Stock No.	Cap., pF	EACH 1-9	10-49	50-Up
695-1000	16.0-365	4.02	3.36	2.85

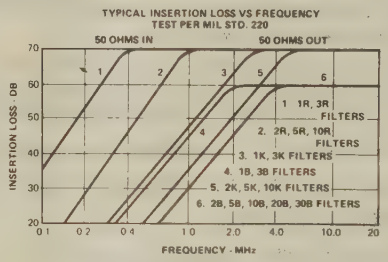
RFI POWER LINE FILTERS

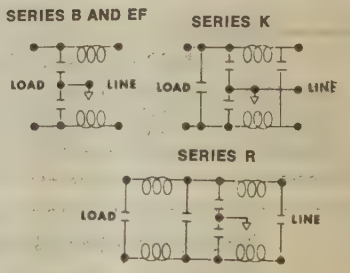


GENERAL ELECTRICAL SPECIFICATIONS

	B, K & R SERIES 115-230V	EF SERIES 115-230V
RATED VOLTAGE		
MAXIMUM LEAKAGE CURRENT, EACH LINE TO GROUND 115 VAC/60 Hz	0.5 mA	0.25 mA
CAPACITANCE, LINE TO GROUND	10,000 pF	5000 pF
OPERATING FREQUENCY	50-400 Hz	50-400 Hz
HIGH POT TEST	2100 VDC	2100 VDC

This graph illustrates typical insertion loss vs. frequency test per MIL-STD 220. Note the high levels of insertion loss provided by these filters.


TYPICAL INSERTION LOSS VS FREQUENCY
TEST PER MIL STD. 220
50 OHMS IN
50 OHMS OUT
INSERTION LOSS - DB
FREQUENCY - MHz
1. 1R, 3R FILTERS
2. 2R, 5R, 10R FILTERS
3. 1K, 3K FILTERS
4. 1B, 3B FILTERS
5. 2K, 5K, 10K FILTERS
6. 2B, 5B, 10B, 20B, 30B FILTERS



SERIES B FILTERS (See Schematic)

TWO "L" SECTIONS—1 TO 30 AMPS; 115/230 VOLTS, 60 HZ AC

B series RFI power line filters are the most popular units in the entire line. They are general purpose filters, effectively providing RFI control of line-to-ground noise—in a small size, at lowest cost. These filters are designed to meet a wide variety of applications and are available in a broad selection of current ratings and termination styles.

Stock No.	Mfr's Type	Fig.	Case Style	Size LxWxH Inches	Max. Line Current	DC Ohms	EACH 1-24	25-49	50-99	100-Up
754-0206	1B1	A	B1	2.50x2.25x.650	1 amp	.15	8.39	6.71	5.60	4.76
754-0230	2B1	A	B1	2.50x2.25x.650	2 amp	.04	7.59	6.07	5.07	2.37
754-0239	2B4	D	B4	2.00x2.50x.750	2 amp	.04	8.69	6.95	5.80	4.94
754-0248	3B2	B	B2	2.50x1.94x.750	3 amp	.08	8.86	7.08	5.92	5.03
754-0255	3B4	D	B4	2.00x2.75x.750	3 amp	.08	9.96	7.96	6.65	5.65
754R0261	5B1	A	B1	2.50x2.60x.750	5 amp	.02	7.76	6.20	5.18	4.40
754-0270	5B4	D	B4	2.00x2.75x.750	5 amp	.02	9.02	7.22	6.03	5.12
754-0276	10B1	A	B1	2.50x2.60x1.13	10 amp	.015	7.85	6.44	5.80	4.85
754-0301	20B1	A	B1	2.78x3.35x1.13	20 amp	.01	14.08	11.26	9.41	8.00
754-0306	20B6	E	B6	2.78x3.38x1.13	20 amp	.01	15.81	12.65	10.56	8.98
754-0406	30B6	E	B6	4.12x5.13x1.50	30 amp	....	28.16	22.53	18.81	16.00

SERIES K FILTERS WITH LINE-TO-LINE CAPACITORS

2 TO 20 AMPS; 115/230 VOLTS, 60 HZ AC

The K series RFI power line filters is similar to B series at left; they have the added feature of being extremely effective in the control of line-to-line as well as line-to-ground RF interference. Particularly suited where pulsed, continuous and/or intermittent RF interference is present in your application. They should be used where line-to-line interference protection is required for your equipment.

Stock No.	Mfr's Type	Fig.	Case Style	Size LxWxH Inches	Max. Line Current	DC Ohms	EACH 1-24	25-49	50-99	100-Up
754-1001	1K1	A	K1	2.78x3.13x.875	1 amp	.15	10.51	8.40	7.02	5.97
754-1025	2K1	A	K1	2.78x3.13x.875	2 amp	.04	9.60	7.68	6.41	5.45
754-1035	2K3	C	K3	2.78x1.81x.875	2 amp	.04	9.74	7.79	6.50	5.53
754-1075	5K1	A	K1	2.78x3.13x1.13	5 amp	.02	9.74	7.79	6.50	5.53
754-1080	5K3	C	K3	2.78x1.81x1.13	5 amp	.02	10.20	8.16	6.82	5.80
754-1082	5K4	D	K4	2.00x2.75x1.13	5 amp	.02	10.97	8.79	7.33	6.23
754-1087	10K1	A	K1	2.78x3.38x1.13	10 amp	.015	10.64	8.51	7.11	6.05
754-1095	10K6	E	K6	2.78x3.25x1.13	10 amp	.015	12.32	9.86	8.23	7.00
754-2080	20K1	A	K1	3.32x3.38x1.50	20 amp	....	16.85	13.48	11.26	9.57

SERIES EF INTERNATIONAL FILTERS (See Schematic)

3 TO 6 AMPS; 115-230 VOLTS, 50-60 HZ AC

The EF International series of RFI power line filters incorporates the special IEC (International Electrotechnical Commission) power line connector. This connector has 4mm minimum pin spacing and complies with all current and proposed requirements for use with industrial and test equipment in the European market where a detachable power cord is part of the equipment design. The EF series features extremely low leakage current; meets IEC, BSI, VDE, CSA and ASA requirements for data processing equipment.

Stock No.	Mfr's Type	Fig.	Case Style	Size LxWxH Inches	Max. Line Current	DC Ohms	EACH 1-24	25-49	50-99	100-Up
754-0253	3EF1	F	E1	1.97x1.97x .79	3 amp	.05	10.93	8.34	7.30	6.21
754-0274	3EF1	F	E1	1.97x1.97x .79	6 amp	.03	10.25	8.20	6.85	5.82
754-0254	3EF2	G	E2	1.97x1.55x1.31	3 amp	.05	9.96	7.96	6.65	5.65
754-0275	6EF2	G	E2	1.97x1.55x1.31	6 amp	.03	10.25	8.20	6.85	5.84

3-CONDUCTOR LINE CORDS

Type 80-1255. Mates with 'B' Series filters.
754-0855. 1-24.....**Each 2.63** **25-Up**.....**Each 2.10**

Type 80-1245. Mates with EF International filters.
754-0845. 1-24.....**Each 4.46** **25-Up**.....**Each 3.76**

SERIES R FILTERS (See Schematic)

TWO "T" SECTIONS—1 TO 10 AMPS; 115/230 VOLTS. 50-60 HZ AC

The R series RFI filters incorporate two T sections and provide premium performance at reasonable cost. Designed to meet high attenuation at low frequencies. The 1- and 3-amp versions have an insertion loss as low as 45 dB at 150 kHz. These dual-section filters provide positive RFI control of line-to-line as well as line-to-ground noise. Small in size, designed for computer peripheral and a wide variety of other critical applications. *Case style R3 has wire/wire terminations.

Stock No.	Mfr's Type	Fig.	Case Style	Size LxWxH Inches	Max. Line Current	DC Ohms	EACH 1-24	25-49	50-99	100-Up
754-2001	1R1	H	R1	3.38x1.75x1.13	1 amp	.30	15.57	12.45	10.40	8.41
754-2010	1R3	H	R3*	2.75x1.75x1.13	1 amp	.30	15.90	12.72	10.62	9.03
754-2015	2R1	H	R1	3.38x1.75x1.13	2 amp	.08	14.77	11.81	9.87	8.39
754-2030	3R1	H	R1	3.88x2.00x1.13	3 amp	.16	15.90	12.72	10.62	9.03
754-2045	5R1	H	R1	3.88x2.00x1.13	5 amp	.04	14.93	11.95	9.98	8.48
754-2055	5R3	H	R3*	3.32x2.00x1.13	5 amp	.04	15.40	12.32	10.29	8.75
754R2060	10R1	H	R1	3.88x2.00x1.50	10 amp	.03	15.75	12.58	10.51	8.94
754-2070	10R3	H	R3*	3.32x2.00x1.50	10 amp	.03	16.03	12.83	10.71	9.11
754-2075	10R6	E	R6	2.00x3.80x1.50	10 amp	.03	17.41	13.93	11.63	9.89

Alec Electron Says – Allied's "Guide" Is the "Yellow Pages" of Electronics

Connector Index; Telephone Products

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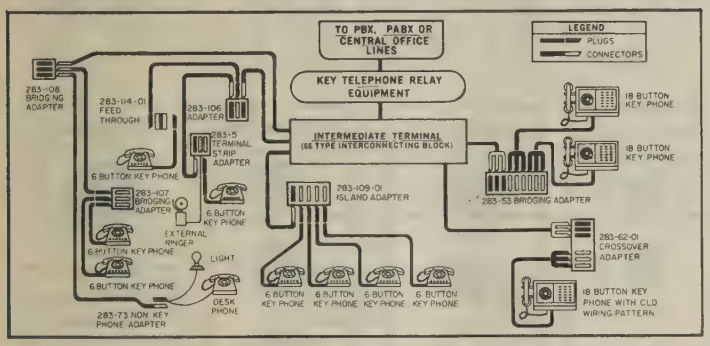
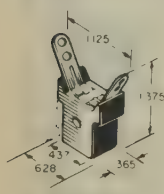


KEY TELEPHONE SYSTEM INTERCONNECTIONS

The interconnection products on this page permit fast, easy and economical linking and extensions of telephone circuitry. They offer practically unlimited versatility. These systems, using factory terminated plugs and connectors, substantially reduce the time required to connect complicated telephone installations. Their reusability means that you can add to or rearrange your present system at will. Bridging adapters and other interconnection devices use highly reliable 57 Series Micro-Ribbon plugs and connectors. Bridging adapters are in durable plastic cases with removable covers—choice of two colors, compatible with housings of related equipment. **Add suffix-1 to Mfr's Type No. for gray, -2 for Beige.** ‡C=connector (receptacle or female device). P=plug.

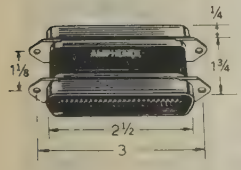
TAC TEST APPARATUS CONNECTOR



Pocket-size adapter provides fast, safe access to any pair of "quick-clip" contacts in a "66 type" connecting block. Exposed "ears" are widely spread to reduce the possibility of shorts. Contacts are gripped firmly to prevent disconnection. Black molded plastic body. Size, 1.375″ long x 1.437″ wide x .365″ high. Base dimension at contact, .437 x .365″ with .098″ gap between contacts.

Stock No.	Mfr's Type	EACH			
		1-9	10-24	25-99	100-Up
714R0001	284-1	.63	.57	.46	.37

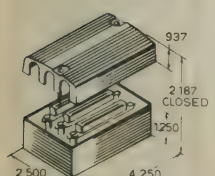
GOOF PLUGS



Interconnects two plug-ended or two connector-ended cables. Feed-through adapter consists of two 57 Series Micro-Ribbon 50-contact connectors or plugs arranged back-to-back in a plastic housing with all common contact interwired.

Stock No.	Mfr's Type	Connector/ Plug Arrangement‡	EACH		
			1-9	10-24	25-Up
714-0114	283-114-01	Connector-Connector	12.78	10.22	9.20
714-0116	283-114-02	Connector-Plug	12.78	10.22	9.20
714-0118	283-114-03	Plug-Plug	12.78	10.22	9.20
714-0119	283-114-04	Plug-Plug	12.78	10.22	9.20
714-0121	283-114-05	Connector-Connector	12.78	10.22	9.20

25-PAIR CABLE ADAPTERS

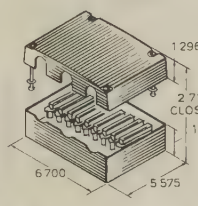


THREE-WAY BRIDGING ADAPTERS FOR 6-BUTTON TELEPHONES. Three interwired 57 Series Micro-Ribbon connecting devices in a durable plastic housing. Used to connect one or more 6-button key tele-devices to 25-pair cables. All common contacts are factory interwired (contact 1 in the first connecting device is wired to contact 1 in both other devices, contact 2 to contact 2 in both other devices, etc. Size: outer case: 4¼x2½x2¼″.

Stock No.	Mfr's Type	Connector/ Plug Arrangement‡	EACH		
			1-9	10-24	25-Up
714-0102	283-105	C-P-C	14.95	11.96	10.76
714-0104	283-106	P-C-P	14.95	11.96	10.76

CONFIGURATIONS. Type 283-105: Mates with one incoming 25-pair connector-ended cable from main terminal box or another bridging adapter; extends circuit to two 6-button phones by mating with plug-ended cable from each. **Type 283-106:** Interconnects one incoming 25-pair connector-ended cable from main terminal box, one outgoing plug-ended cable to a 6-button phone, and one outgoing 25-pair connector-ended cable going to another bridging adapter, thereby exteding the circuit.

75-PAIR CABLE ADAPTERS

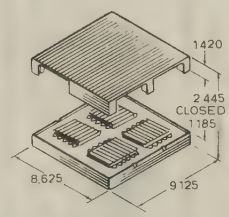


THREE-WAY BRIDGING ADAPTER FOR 18-BUTTON CALL DIRECTOR™ OR CALL COMMANDER™ TYPE PHONES. Nine 57 Series Micro-Ribbon connecting devices interwired to connect and extend circuitry for the popular 18-button telephones. Rugged plastic housing has an easily removed cover and three cable access holes. Every third connector or plug in the adapter is interconnected (connector 1 is wired to plug 4 and connector 7; connector 2 to plug 5 and connector 8; connector 3 to plug 6 and connector 9). Size: 6.700x5.75x2.718″.

Stock No.	Mfr's Type	Connector/ Plug Arrangement‡	EACH		
			1-9	10-24	25-Up
714R0112	283-53	CCC-PPP-CCC	65.50	52.40	44.54

CONFIGURATION: Type 283-53: Mates with one 3-finger (75-pair) connector-ended cable incoming from the main terminal box or another bridging adapter and extends circuit to two 18-button Call Directors by accepting 3-finger plug-ended cable from each.

100-PAIR CABLE ADAPTERS

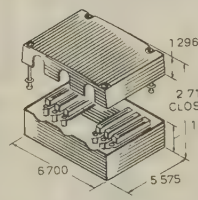


FOUR-WAY BRIDGING ADAPTER FOR 30-BUTTON KEY TELEPHONES. A rugged adapter containing twenty 57 Series Micro-Ribbon connecting devices. Every fifth connecting device is interwired to form 4 completely interconnected sets. Access holes for 5-fingered cables are provided on the sides of the case. This adapter is used with 30-Button Call Director or all Commander type key telephones.

Stock No.	Mfr's Type	Connector/ Plug Arrangement	EACH		
			1-9	10-24	25-Up
714-4251	283-95-1	Connector-Plug	122.91	98.33	88.50

CONFIGURATION: Interconnects one five-finger (100 pair) connector-ended cable incoming from the main terminal box or another bridging adapter, two five-finger plug-ended cables, each from a 30-button Call Director and a five-finger (100 pair) connector-ended cable outgoing to another bridging adapter, extending the circuit.

CROSS-OVER ADAPTERS

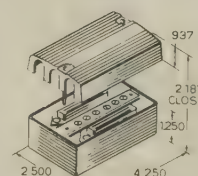


FOR INTER-CONNECTING KEY TELEPHONES TO CABLES WITH DIFFERENT "ODD COUNT—EVEN COUNT" WIRING PATTERNS. Crossover adapters allow greater flexibility for equipment usage by permitting use of Call Director or Call Commander key telephones of either old or new wiring pattern (odd count or even count) with either type of cable. 6 connecting devices for 18-button key phones. 57 Series Micro-Ribbon connecting devices interwired in a special manner to convert one wiring pattern to another.

Stock No.	Mfr's Type	Used With		EACH		
		Phone Wiring Pattern	Cable Wiring Pattern	1-9	10-24	25-Up
714-4252	283-62-01	Old	New	53.41	42.73	38.46

CONFIGURATION: Type 283-62-01: Interconnects an 18-button phone with old wiring pattern to a three fingered (75 pair) cable having the new wiring pattern.

TERMINAL STRIP ADAPTER



Permits use of screw-type terminal to interconnect with plug-ended cable system. May be used when equipment with ordinary wire leads must be interconnected into a plug-ended cable system. Single line telephones, busy lamps, ringers, auxillary test equipment or special purpose equipment can easily be interconnected to the circuit. Offers easy access to desired conductors; eliminates necessity of cutting off the plug or connector and re-terminating the entire cable. Consists of one 57 Series Micro-Ribbon connector and one plug with all 50 contacts interwired. The last three or four pairs of leads are also interwired to center terminal strip. Size: standard 3-way case, 4½x2½x2½″.

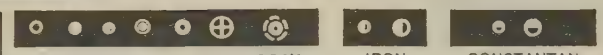
Stock No.	Mfr's Type	No. of Terminals	EACH		
			1-9	10-24	25-Up
714-0120	283-5	6	13.81	11.05	9.95

COLOR CODING FOR TERMINAL STRIP ADAPTER

Terminal Contacts	Color Coding		Terminal Contacts	Color Coding		Terminal Contacts	Color Coding	
	Ringer	Tipside		Ringer	Tipside		Ringer	Tipside
50	Violet	Slate	49	Violet	Brown	48	Violet	Green
25	Slate	Violet	24	Brown	Violet	23	Green	Violet

MS Connector Insert Arrangements

CODE OF WIRE SIZES



FRONT VIEW OF POSITIONS

Contact sizes correspond in number coding to wire sizes.

ALTERNATE INSERT POSITIONS AVAILABLE

- A W, X, Y or Z
- B W, X or Y
- C X or Y
- D W, Y or Z
- E X
- F W or Z
- G W or Y

COMPLETE LINE AVAILABLE AT ALLIED. The entire MS product line is stocked as components. Any combination of shell, insert, boot, clamp, etc., can be quickly assembled, packaged and shipped.

CURRENT RATINGS

CONTACT SIZE	20	16	12	8	4	0
AMPERES	10	22	41	73	135	245

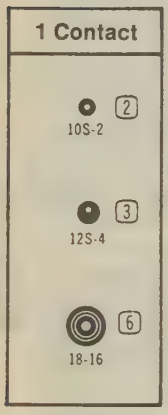
SERVICE RATINGS

SERVICE	1	2	3	4	5	6
Max. Operating DC	250	700	1250	1750	2450	4200
Sea Level Volts AC (rms)	200	500	900	1250	1750	3000

CONNECTOR SIZE—O.D. OF RECEPTACLE COUPLING THREADS

Conn. Size	O.D. In.	Conn. Size	O.D. In.	Conn. Size	O.D. In.	Conn. Size	O.D. In.	Conn. Size	O.D. In.
10S	5/8	14S	7/8	18	1 1/8	24	1 1/2	36	2 1/4
10SL	5/8	16S	1	20	1 1/4	28	1 3/4	..	..
12S	3/4	16	1	22	1 3/8	32	2	..	..

1 Contact



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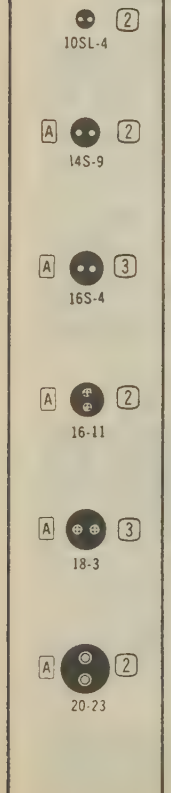

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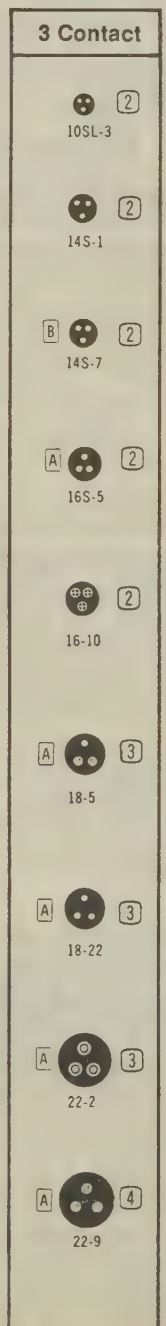

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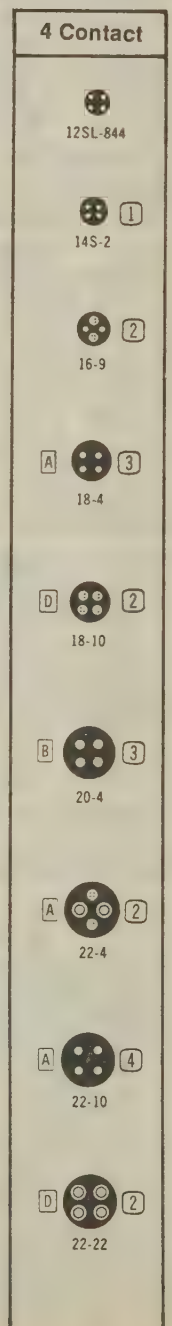

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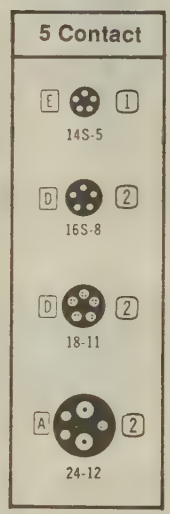

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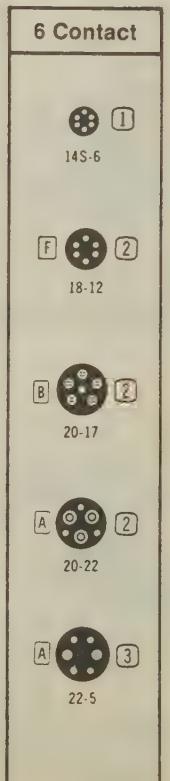

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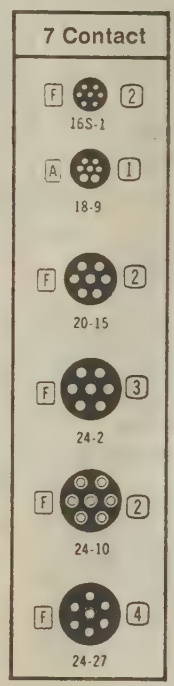

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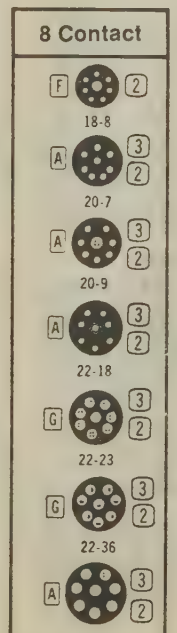

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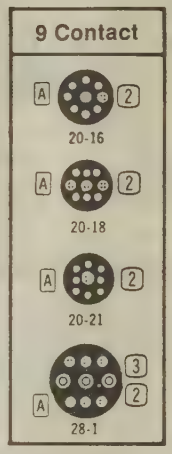

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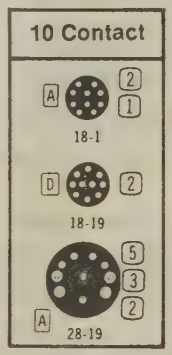

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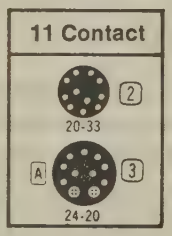
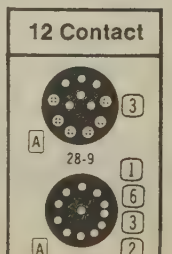


12 Contact



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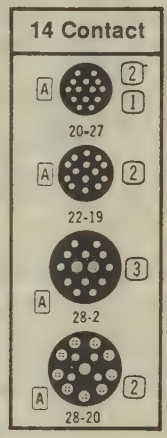
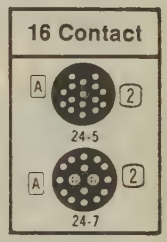


15 Contact

16 Contact



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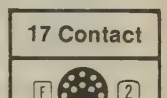
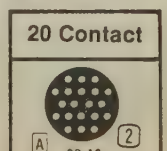


19 Contact

20 Contact



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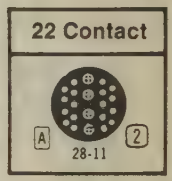
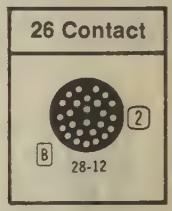


24 Contact

26 Contact



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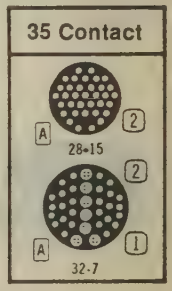

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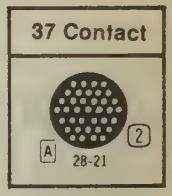

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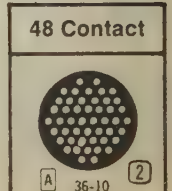
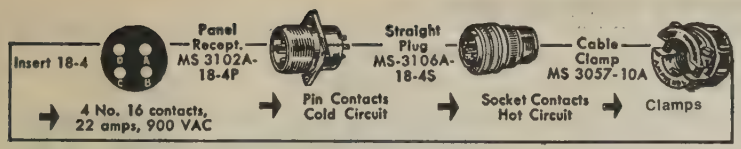


See Following Pages for MS Connector Listings

MS Receptacles and Mating Plugs


Insert 18-4
Panel Recept. — MS 3102A-18-4P
Straight Plug — MS-3106A-18-4S
Cable Clamp — MS 3057-10A
4 No. 16 contacts, 22 amps, 900 VAC
Pin Contacts Cold Circuit
Socket Contacts Hot Circuit
Clamps

PLEASE NOTE: the following represents only a partial listing of the entire connector line which Allied maintains in depth. Depend on Allied for all your component needs.

EXPLANATION OF SERIES NUMBERS:

For example, 3102A-18-11P – "A" stands for solid shell ("B" split shell). "18" indicates shell size in 16ths of 1"; "P" – pin; "S" – socket type. Mates for 3100A, 3101A and 3102A are directly opposite on facing column. Require cable clamp (in this section) except 3102A. Contacts are silver plated and solder cups tinned. Aluminum shells with cadmium plate and O.D. conversion. All meet **MIL-C-5015D.**

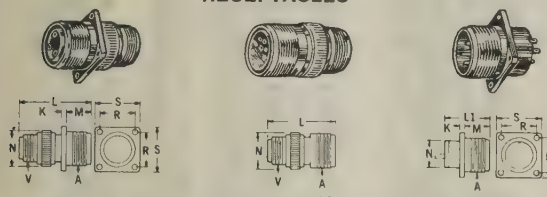
HOW TO ORDER

Select desired receptacle or mating plug on this or next page, then shell style. Paired-off listing shows mating plugs and receptacles on the same line. Specify Stock Number, then add connector Type Number. For example: 605-1001 (Stock No.)—3100A-10S-2P (Type No.).

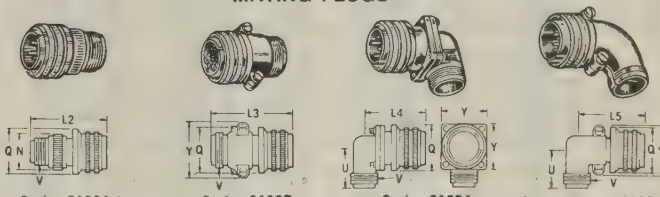
DIMENSIONS TABLE

Connector Size	A Coup. Threads	K	L	L_1 MS 3102A	L_2	L_3	L_4	L_5	M	N	O	Q	R	S	U	U_1	Y	X_1	Y_1	Fitting Th.
10S	⅝-24	5/64	1 5/16	27/32	1 5/16	—	1 1/4	1 3/8	9/16	5/8	.688	7/8	23/32	1	7/8	7/8	25/32	—	—	½-28
10SL	⅝-24	5/64	1 9/32	27/32	1 3/8	—	1 5/16	1 1/2	9/16	5/8	.812	7/8	23/32	1	1	1	1 1/16	—	—	⅝-24
12S	¾-20	5/64	1 15/32	61/64	1 7/16	—	1 3/8	1 9/16	9/16	25/32	.812	1	13/16	1 3/32	1	1	1 1/16	½	—	⅝-24
12SL	¾-20	5/64	—	27/32	1 31/64	—	1 1/64	—	—	—	—	1	—	—	1	1 1/16	1 1/16	—	—	¾-20
14S	⅞-20	5/64	1 7/16	15/16	1 7/16	1 1 1/16	1 3/8	1 23/32	9/16	⅞	.938	1 1/8	29/32	1 3/16	1	1 1/16	1 1/16	21/32	—	¾-20
16S	1 -20	5/64	1 31/64	15/16	1 29/64	1 1 1/16	1 1/2	1 3/4	9/16	1	1.062	1 1/4	31/32	1 9/32	1 1/8	1 1/8	1 5/16		1 1/2	⅞-20
16	1 -20	1/8	1 57/64	1 1 1/32	1 57/64	—	1 15/16	2 1/8	¾	1	1.062	1 1/4	31/32	1 9/32	1 1/8	1 1/8	1 5/16	—	1 1/2	⅞-20
18	1⅛-18	1/8	2	1 1 1/32	2	2 1/16	1 1 5/16	2 1 3/32	¾	1 1/8	1.188	1 1 1/32	1 1/16	1 3/8	1 1/8	1 3/16	1 5/16	—	1 41/64	1 -20
20	1¼-18	1/8	2 1/8	1 1 1/32	2 1/8	2 1/8	2 1/16	2 5/32	¾	1 1/4	1.312	1 1 5/32	1 5/32	1 1/2	1 5/16	1 5/16	1 5/8	—	1 13/16	1 3/16-18
22	1⅜-18	1/8	2 1/8	1 1 1/32	2 1/8	2 1/8	2 1/16	2 13/32	¾	1 3/8	1.438	1 1 9/32	1 1/4	1 5/8	1 5/16	1 5/16	1 5/8	—	1 15/16	1 3/16-18
24	1½-18	1/8	2 1/4	1 1 1/32	2 1/4	2 9/32	2 1 5/32	2 5/8	13/16	1 1/2	1.562	1 1 23/32	1 3/8	1 3/4	1 1/2	1 7/16	2	—	2 1/16	1 7/16-18
28	1¾-18	1/8	2 1/4	1 1 1/32	2 1/4	2 9/32	2 1 5/32	2 5/8	13/16	1 3/4	1.812	1 1 1/32	1 9/16	2	1 1/2	1 7/16	2	—	2 5/16	1 7/16-18
32	2 -18	1/8	2 3/8	1 7/16	2 3/8	2 5/16	2 1 1/16	2 1 3/16	⅞	2 1/32	2.062	2 7/32	1 3/4	2 1/4	1 25/32	1 3/4	2 1/2	—	2 9/32	1 3/4-18
36	2¼-16	1/8	2 3/8	1 7/16	2 3/8	2 1 1/32	2 1 1/16	2 27/32	⅞	2 1/4	2.312	2 1 5/32	1 1 15/16	2 1/2	1 25/32	1 1 5/16	2 1/2	—	2 27/32	2-18

RECEPTACLES



MATING PLUGS



SHELL STYLE INSERT	MS3100A Stock No.	MS3100A EACH 1-24	MS3101A Stock No.	MS3101A EACH 1-24	MS3102A Stock No.	MS3102A EACH 1-24	SHELL STYLE INSERT	Series 3106A Stock No.	Series 3106A EACH 1-24	Series 3106B Stock No.	Series 3106B EACH 1-24	Series 3108A Stock No.	Series 3108A EACH 1-24	Series 3108B Stock No.	Series 3108B EACH 1-24
10S-2P	605-1001	5.43	605-2001	4.43	605-3001	2.05	10S-2S	605-4001	4.78	.....	.....	.....	.....	.....	.....
10S-2S	605-1002	5.33	605-2002	4.53	605-3002	2.13	10S-2P	605-4002	4.75	.....	.....	.....	.....	.....	.....
10SL-3P	605-1003	3.40	605-2003	5.13	605-3003	2.65	10SL-3S	605-4003	4.15	.....	.....	605-6003	7.33	605-7001	3.80
10SL-4P	605-1004	3.38	605-2004	4.80	605-3004	2.65	10SL-4S	605-4004	4.05	.....	.....	.....	.....	605-7002	3.75
12S-4P	605-1005	3.80	605-2005	4.53	605-3005	2.15	12S-4S	605-4005	3.65	.....	.....	605-6005	8.43	605-7003	4.73
12S-4S	605-1006	3.80	605-2006	4.53	605-3006	2.15	12S-4P	605-4006	3.65	.....	.....	605-6006	8.43	605-7004	4.73
12SL-844P	.....	.....	.....	.....	605-3007	4.78	12SL-844S	605-4007	8.88	.....	.....	605-6007	13.38	.....	.....
14S-1P	605-1007	3.90	605-2007	4.80	605-3008	2.63	14S-1S	605-4008	4.05	605-5001	4.80	605-6008	8.23	605-7005	4.53
14S-1S	605-1008	4.05	605-2008	4.90	605-3009	2.65	14S-1P	605-4009	3.90	605-5002	4.78	605-6009	8.20	605-7006	4.43
14S-2P	605-1009	3.88	605-2009	4.78	605-3010	2.60	14S-2S	605-4010	4.20	605-5003	5.03	605-6010	8.38	605-7007	4.73
14S-2S	605-1010	4.20	605-2010	5.05	605-3011	2.80	14S-2P	605-4011	3.88	605-5004	4.75	605-6011	8.18	605-7008	4.38
14S-5P	605-1011	4.35	605-2011	5.20	605-3012	2.93	14S-5S	605-4012	4.53	605-5005	5.38	605-6012	8.78	605-7009	4.93
14S-5S	605-1012	4.53	605-2012	5.40	605-3013	3.18	14S-5P	605-4013	4.35	605-5006	5.13	605-6013	8.55	605-7010	4.78
14S-6P	605-1013	4.53	605-2013	5.40	605-3014	3.18	14S-6S	605-4014	4.58	605-5007	5.43	605-6014	8.83	605-7011	5.05
14S-6S	605-1014	4.58	605-2014	5.53	605-3015	3.23	14S-6P	605-4015	4.53	605-5008	5.38	605-6015	8.78	605-7012	4.93
14S-7P	605-1015	3.90	605-2015	4.80	605-3016	2.63	14S-7S	605-4016	4.05	605-5009	4.80	605-6016	8.23	605-7013	4.53
14S-7S	605-1016	4.05	605-2016	4.90	605-3017	2.65	14S-7P	605-4017	3.90	605-5010	4.75	605-6017	8.20	605-7014	4.43
14S-9P	605-1017	3.75	605-2017	4.58	605-3018	2.33	14S-9S	605-4018	3.78	605-5011	4.58	605-6018	8.03	605-7015	4.33
14S-9S	605-1018	3.78	605-2018	4.73	605-3019	2.35	14S-9P	605-4019	3.75	605-5012	4.55	605-6019	8.00	605-7016	4.20
16-9P	605-1019	5.55	605-2019	5.73	605-3020	3.38	16-9S	605-4020	5.93	.....	.....	605-6020	10.80	605-7017	7.23
16-9S	605-1020	6.18	605-2020	6.45	605-3021	4.15	16-9P	605-4021	5.25	.....	.....	605-6021	10.20	605-7018	6.55
16-10P	605-1021	5.40	605-2021	5.55	605-3022	3.23	16-10S	605-4022	5.73	.....	.....	605-6022	10.60	605-7019	6.98
16-10S	605-1022	6.00	605-2022	6.15	605-3023	3.80	16-10P	605-4023	5.05	.....	.....	605-6023	10.00	605-7020	6.38
16-11P	605-1023	5.03	605-2023	5.20	605-3024	2.88	16-11S	605-4024	5.40	.....	.....	605-6024	10.30	605-7021	6.63
16-11S	605-1024	5.60	605-2024	5.83	605-3025	3.53	16-11P	605-4025	4.75	.....	.....	605-6025	9.63	605-7022	6.00
16S-1P	605-1025	5.03	605-2025	5.43	605-3026	3.20	16S-1S	605-4026	5.03	605-5013	6.20	605-6026	11.65	605-7023	5.90
16S-1S	605-1026	5.55	605-2026	5.93	605-3027	3.70	16S-1P	605-4027	4.53	605-5014	5.78	605-6027	10.55	605-7024	5.40
16S-4P	605-1027	4.43	605-2027	4.80	605-3028	2.63	16S-4S	605-4028	4.15	605-5015	5.40	605-6028	10.15	605-7025	4.93
16S-4S	605-1028	4.58	605-2028	5.03	605-3029	2.73	16S-4P	605-4029	3.88	605-5016	5.20	605-6029	9.93	605-7026	4.78
16S-5P	605-1029	4.75	605-2029	5.13	605-3030	2.88	16S-5S	605-4030	4.35	605-5017	5.58	605-6030	10.33	605-7027	5.20
16S-5S	605-1030	4.80	605-2030	5.25	605-3031	3.05	16S-5P	605-4031	4.20	605-5018	5.53	605-6031	10.23	605-7028	5.05
16S-8P	605-1031	4.90	605-2031	5.38	605-3032	3.13	16S-8S	605-4032	4.55	605-5019	5.83	605-6032	10.58	605-7029	5.43
16S-8S	605-1032	5.05	605-2032	5.53	605-3033	3.23	16S-8P	605-4033	4.38	605-5020	5.60	605-6033	10.35	605-7030	5.25
18-1P	605-1033	6.18	605-2033	6.98	605-3034	4.33	18-1S	605-4034	6.53	605-5021	7.63	605-6034	12.60	605-7031	7.90
18-1S	605-1034	6.75	605-2034	7.55	605-3035	4.78	18-1P	605-4035	5.93	605-5022	7.10	605-6035	12.05	605 7032	7.33
18-3P	605-1035	4.93	605-2035	5.73	605-3036	3.05	18-3S	605-4036	5.83	605-5023	6.98	605-6036	11.95	605-7033	7.25
18-3S	605-1036	6.13	605-2036	6.90	605-3037	4.18	18-3P	605-4037	4.73	605-5024	5.83	605-6037	10.75	605-7034	6.13
18-4P	605-1037	5.03	605-2037	5.78	605-3038	3.13	18-4S	605-4038	5.13	605-5025	6.20	605-6038	11.30	605-7035	6.58
18-4S	605-1038	5.43	605-2038	6.15	605-3039	3.40	18-4P	605-4039	4.75	605-5026	5.90	605-6039	10.80	605-7036	6.15
18-5P	605-1039	4.78	605-2039	5.55	605-3040	2.80	18-5S	605-4040	5.13	605-5027	6.20	605-6040	11.30	605-7037	8.30
18-5S	605-1040	5.43	605-2040	6.15	605-3041	3.40	18-5P	605-4041	4.53	605-5028	5.60	605-6041	10.60	605-7038	5.93
18-8P	605-1041	6.18	605-2041	6.98	605-3042	4.33	18-8S	605-4042	6.38	605-5029	7.55	605-6042	12.53	605-7039	7.80
18-8S	605-1042	6.63	605-2042	7.33	605-3043	4.73	18-8P	605-4043	5.93	605-5030	7.10	605-6043	12.05	605-7040	7.33
18-9P	605-1043	5.90	605-2043	6.63	605-3044	3.88	18-9S	605-4044	6.05	605-5031	7.23	605-6044	12.20	605-7041	7.55
18-9S	605-1044	6.38	605-2044	7.10	605-3045	4.38	18-9P	605-4045	5.58	605-5032	6.75	605-6045	11.70	605-7042	7.05
18-10P	605-1045	6.00	605-2045	6.75	605-3046	4.05	18-10S	605-4046	6.38	605-5033	7.55	605-6046	12.53	605-7043	7.80
18-10S	605-1046	6.63	605-2046	7.33	605-3047	4.73	18-10P	605-4047	5.73	605-5034	6.90	605-6047	11.85	605-7044	7.13
18-11P	605-1047	6.00	605-2047	6.75	605-3048	4.05	18-11S	605-4048	5.93	605-5035	7.10	605-6048	12.05	605-7045	7.33
18-11S	605-1048	6.18	605-2048	6.98	605-3049	4.33	18-11P	605-4049	5.73	605-5036	6.90	605-6049	11.85	605-7046	7.13
18-12P	605-1049	5.58	605-2049	6.38	605-3050	3.65	18-12S	605-4050	5.73	605-5037	6.90	605-6050	11.85	605-7047	7.13
18-12S	605-1050	6.00	605-2050	6.75	605-3051	4.05	18-12P	605-4051	5.38	605-5038	6.53	605-6051	11.43	605-7048	6.75
18-16P	605-1051	5.43	605-2051	6.15	605-3052	3.40	18-16S	605-4052	6.05	605-5039	7.23	605-6052	12.20	605-7049	7.55
18-16S	605-1052	6.38	605-2052	7.10	605-3053	4.38	18-16P	605-4053	5.13	605-5040	6.20	605-6053	11.30	605-7050	6.58
18-19P	605-1053	8.38	605-2053	9.20	605-3054	6.53	18-19S	605-4054	6.58	605-5041	7.78	605-6054	12.70	605-7051	8.03
18-19S	605-1054	6.90	605-2054	7.63	605-3055	4.90	18-19P	605-4055	8.18	605-5042	9.28	605-6055	14.25	605-7052	9.58

MS Receptacles and Mating Plugs

DISCOUNT SCHEDULE FOR MS CONNECTORS

On Items Under $12.00	25-49	Less 20%	50-99	Less 40%	100-Up	Less 58%
On Items $12.00 and Over	25-49	Less 20%	50-99	Less 30%	100-Up	Less 37%

RECEPTACLES (Continued)

SHELL STYLE INSERT	MS3100A Stock No.	MS3100A EACH 1-24	MS3101A Stock No.	MS3101A EACH 1-24	MS3102A Stock No.	MS3102A EACH 1-24
20-4P	605-1055	6.20	605-2055	6.70	605-3056	3.90
20-4S	605-1056	7.13	605-2056	7.60	605-3057	4.80
20-7P	605-1057	6.20	605-2057	6.70	605-3058	3.90
20-7S	605-1058	6.83	605-2058	7.23	605-3059	4.53
20-9P	605-1059	6.75	605-2059	7.13	605-3060	4.43
20-9S	605-1060	6.90	605-2060	7.25	605-3061	4.55
20-15P	605-1061	6.93	605-2061	7.30	605-3062	4.58
20-15S	605-1062	9.38	605-2062	9.83	605-3063	7.10
20-16P	605-1063	6.98	605-2063	7.33	605-3064	4.73
20-16S	605-1064	7.43	605-2064	7.83	605-3065	5.13
20-17P	605-1065	6.90	605-2065	7.25	605-3066	4.55
20-17S	605-1066	8.35	605-2066	8.80	605-3067	6.05
20-18P	605-1067	7.25	605-2067	7.73	605-3068	4.93
20-18S	605-1068	8.03	605-2068	8.38	605-3069	5.73
20-21P	605-1069	6.75	605-2069	7.13	605-3070	4.43
20-21S	605-1070	7.10	605-2070	7.55	605-3071	4.78
20-22P	605-1071	8.00	605-2071	8.35	605-3072	5.60
20-22S	605-1072	9.38	605-2072	9.83	605-3073	7.10
20-23P	605-1073	6.70	605-2073	7.10	605-3074	4.38
20-23S	605-1074	7.30	605-2074	7.78	605-3075	5.03
20-27P	605-1075	7.13	605-2075	7.60	605-3076	4.80
20-27S	605-1076	7.83	605-2076	8.23	605-3077	5.55
20-29P	605-1077	7.78	605-2077	8.18	605-3078	5.43
20-29S	605-1078	8.60	605-2078	8.98	605-3079	6.20
20-33P	605-1079	7.73	605-2079	8.13	605-3080	5.40
20-33S	605-1080	7.90	605-2080	8.30	605-3081	5.58
22-2P	605-1081	7.60	605-2081	7.90	605-3082	4.80
22-2S	605-1082	9.23	605-2082	9.58	605-3083	6.55
22-4P	605-1083	7.83	605-2083	8.20	605-3084	5.13
22-4S	605-1084	8.88	605-2084	9.23	605-3085	6.15
22-5P	605-1085	7.30	605-2085	7.73	605-3086	4.58
22-5S	605-1086	7.33	605-2086	7.78	605-3087	4.73
22-9P	605-1087	6.53	605-2087	6.83	605-3088	3.75
22-9S	605-1088	8.23	605-2088	8.60	605-3089	5.55
22-10P	605-1089	6.53	605-2089	6.83	605-3090	3.75
22-10S	605-1090	6.75	605-2090	7.10	605-3091	4.05
22-14P	605-1091	8.70	605-2091	8.98	605-3092	5.93
22-14S	605-1092	9.93	605-2092	10.30	605-3093	7.23
22-18P	605-1093	7.23	605-2093	7.60	605-3094	4.53
22-18S	605-1094	7.30	605-2094	7.73	605-3095	4.58
22-19P	605-1095	8.55	605-2095	8.88	605-3096	5.83
22-19S	605-1096	8.70	605-2096	8.98	605-3097	5.93
22-22P	605-1097	8.88	605-2097	9.15	605-3098	6.00
22-22S	605-1098	11.00	605-2098	11.33	605-3099	8.23
22-23P	605-1099	8.35	605-2099	8.78	605-3100	5.60
22-23S	605-1100	10.73	605-2100	11.10	605-3101	8.03
22-36P	605-1101	25.27	605-2101	25.48	605-3102	23.46
22-36S	605-1102	27.66	605-2102	27.91	605-3103	25.89
24-2P	605-1103	8.80	605-2103	8.83	605-3104	5.58
24-2S	605-1104	10.60	605-2104	10.65	605-3105	7.43
24-5P	605-1105	9.75	605-2105	9.83	605-3106	6.58
24-5S	605-1106	11.00	605-2106	11.05	605-3107	7.80
24-6P	605-1107	9.18	605-2107	9.20	605-3108	5.93
24-6S	605-1108	11.90	605-2108	11.95	605-3109	8.88
24-7P	605-1109	10.20	605-2109	10.23	605-3110	6.98
24-7S	605-1110	11.00	605-2110	11.05	605-3111	7.80
24-10P	605-1111	12.70	605-2111	12.78	605-3112	9.55
24-10S	605-1112	14.63	605-2112	14.68	605-3113	11.95
24-12P	605-1113	11.33	605-2113	11.38	605-3114	8.18
24-12S	605-1114	13.60	605-2114	13.63	605-3115	10.35
24-20P	605-1115	9.15	605-2115	9.18	605-3116	5.90
24-20S	605-1116	9.20	605-2116	9.23	605-3117	6.00
24-27P	605-1117	7.80	605-2117	7.83	605-3118	4.58
24-27S	605-1118	8.03	605-2118	8.13	605-3119	4.80
24-28P	605-1119	10.65	605-2119	10.73	605-3120	7.55
24-28S	605-1120	12.05	605-2120	12.13	605-3121	8.88
28-1P	605-1121	11.23	605-2121	12.33	605-3122	8.20
28-1S	605-1122	14.33	605-2122	14.18	605-3123	11.33
28-2P	605-1123	10.00	605-2123	8.88	605-3124	6.98
28-2S	605-1124	10.65	605-2124	9.38	605-3125	7.73
28-9P	605-1125	10.58	605-2125	11.65	605-3126	7.60
28-9S	605-1126	11.58	605-2126	12.63	605-3127	8.55
28-11P	605-1127	11.33	605-2127	12.43	605-3128	8.30
28-11S	605-1128	13.75	605-2128	14.80	605-3129	10.73
28-12P	605-1129	11.73	605-2129	12.83	605-3130	8.80
28-12S	605-1130	13.75	605-2130	14.80	605-3131	10.73
28-15P	605-1131	13.18	605-2131	14.33	605-3132	10.23
28-15S	605-1132	14.03	605-2132	10.95	605-3133	12.23
28-16P	605-1133	11.65	605-2133	12.78	605-3134	8.70
28-16S	605-1134	11.73	605-2134	12.83	605-3135	8.80
28-17P	605-1135	9.90	605-2135	11.00	605-3136	6.90
28-17S	605-1136	10.58	605-2136	11.65	605-3137	7.60
28-18P	605-1137	9.58	605-2137	10.65	605-3138	6.55
28-18S	605-1138	10.38	605-2138	11.58	605-3139	7.43
28-19P	605-1139	9.70	605-2139	10.75	605-3140	6.70
28-19S	605-1140	11.73	605-2140	12.83	605-3141	8.80
28-20P	605-1141	11.43	605-2141	12.58	605-3142	8.38
28-20S	605-1142	12.70	605-2142	13.80	605-3143	9.70
28-21P	605-1143	13.63	605-2143	14.75	605-3144	10.60
28-21S	605-1144	14.20	605-2144	11.06	605-3145	12.53
32-7P	605-1145	14.40	605-2145	14.18	605-3146	11.15
32-7S	605-1146	12.27	605-2146	12.93	605-3147	13.85
36-10P	605-1147	13.08	605-2147	14.95	605-3148	14.73
36-10S	605-1148	14.13	605-2148	11.74	605-3149	14.95

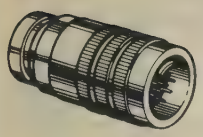
All MS Connectors except the 3102 Series require clamp. See next page.

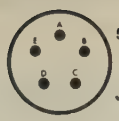
MATING PLUGS (Continued)

SHELL STYLE INSERT	Series 3106A Stock No.	Series 3106A EACH 1-24	Series 3106B Stock No.	Series 3106B EACH 1-24	Series 3108A Stock No.	Series 3108A EACH 1-24	Series 3108B Stock No.	Series 3108B EACH 1-24
20-4S	605-4056	7.80	605-5043	8.70	605-6056	14.10	605-7053	9.15
20-4P	605-4057	6.93	605-5044	7.80	605-6057	13.18	605-7054	8.20
20-7S	605-4058	7.43	605-5045	8.30	605-6058	13.75	605-7055	8.78
20-7P	605-4059	6.93	605-5046	7.80	605-6059	13.18	605-7056	8.20
20-9S	605-4060	7.55	605-5047	8.35	605-6060	13.80	605-7057	8.80
29-9P	605-4061	7.33	605-5048	8.23	605-6061	13.73	605-7058	8.70
20-15S	605-4062	10.03	605-5049	10.93	605-6062	10.92	605-7059	11.33
20-15P	605-4063	7.60	605-5050	8.38	605-6063	13.83	605-7060	8.83
20-16S	605-4064	8.13	605-5051	8.93	605-6064	14.35	605-7061	9.33
20-16P	605-4065	7.63	605-5052	8.43	605-6065	13.93	605-7062	8.88
20-17S	605-4066	8.98	605-5053	9.90	605-6066	14.13	605-7063	10.30
20-17P	605-4067	7.55	605-5054	8.35	605-6067	13.80	605-7064	8.80
20-18S	605-4068	8.70	605-5055	9.55	605-6068	14.95	605-7065	9.83
20-18P	605-4069	7.90	605-5056	8.80	605-6069	14.20	605-7066	9.20
20-21S	605-4070	7.78	605-5057	8.60	605-6070	14.03	605-7067	8.98
20-21P	605-4071	7.33	605-5058	8.23	605-6071	13.73	605-7068	8.70
20-22S	605-4072	10.03	605-5059	10.93	605-6072	10.92	605-7069	11.33
20-22P	605-4073	8.55	605-5060	9.40	605-6073	14.90	605-7070	9.90
20-23S	605-4074	8.00	605-5061	8.83	605-6074	14.25	605-7071	9.23
20-23P	605-4075	7.30	605-5062	8.20	605-6075	13.63	605-7072	8.60
20-27S	605-4076	8.43	605-5063	9.33	605-6076	14.78	605-7073	9.75
20-27P	605-4077	7.80	605-5064	8.70	605-6077	14.10	605-7074	9.15
20-29S	605-4078	9.23	605-5065	10.15	605-6078	14.33	605-7075	10.55
20-29P	605-4079	8.35	605-5066	9.23	605-6079	14.73	605-7076	9.63
20-33S	605-4080	8.55	605-5067	9.38	605-6080	14.80	605-7077	9.83
20-33P	605-4081	8.30	605-5068	9.20	605-6081	14.68	605-7078	9.58
22-2S	605-4082	9.23	605-5069	10.33	605-6082	14.90	605-7079	10.80
22-2P	605-4083	7.60	605-5070	8.70	605-6083	14.53	605-7080	9.20
22-4S	605-4084	8.88	605-5071	10.00	605-6084	14.58	605-7081	10.55
22-4P	605-4085	7.83	605-5072	8.93	605-6085	14.78	605-7082	9.40
22-5S	605-4086	7.33	605-5073	8.43	605-6086	14.33	605-7083	8.98
22-5P	605-4087	7.30	605-5074	8.38	605-6087	14.25	605-7084	8.93
22-9S	605-4088	8.23	605-5075	9.33	605-6088	14.00	605-7085	9.90
22-9P	605-4089	6.53	605-5076	7.60	605-6089	13.38	605-7086	8.13
22-10S	605-4090	6.75	605-5077	7.83	605-6090	13.73	605-7087	8.35
22-10P	605-4091	6.53	605-5078	7.60	605-6091	13.38	605-7088	8.13
22-14S	605-4092	9.93	605-5079	11.05	605-6092	11.27	605-7089	11.58
22-14P	605-4093	8.70	605-5080	9.75	605-6093	14.40	605-7090	10.30
22-18S	605-4094	7.30	605-5081	8.38	605-6094	14.25	605-7091	8.93
22-18P	605-4095	7.23	605-5082	8.30	605-6095	14.18	605-7092	8.83
22-19S	605-4096	8.70	605-5083	9.75	605-6096	14.40	605-7093	10.30
22-19P	605-4097	8.55	605-5084	9.63	605-6097	14.20	605-7094	10.20
22-22S	605-4098	11.00	605-5085	12.05	605-6098	12.00	605-7095	12.60
22-22P	605-4099	8.78	605-5086	9.83	605-6099	14.50	605-7096	10.33
22-23S	605-4100	10.73	605-5087	11.85	605-6100	11.77	605-7097	12.40
22-23P	605-4101	8.35	605-5088	9.40	605-6101	14.13	605-7098	10.00
22-36S	605-4102	27.66	605-5089	28.42	605-6102	32.30	605-7099	28.72
22-36P	605-4103	25.27	605-5090	26.02	605-6103	29.93	605-7100	26.34
24-2S	605-4104	10.75	605-5091	12.78	605-6104	12.17	605-7101	11.73
24-2P	605-4105	8.93	605-5092	10.93	605-6105	10.96	605-7102	9.93
24-5S	605-4106	11.15	605-5093	13.10	605-6106	12.42	605-7103	12.13
24-5P	605-4107	9.93	605-5094	11.90	605-6107	11.62	605-7104	10.93
24-6S	605-4108	12.05	605-5095	14.03	605-6108	13.06	605-7105	13.05
24-6P	605-4109	9.28	605-5096	11.30	605-6109	11.22	605-7106	10.30
24-7S	605-4110	11.15	605-5097	13.10	605-6110	12.42	605-7107	12.13
24-7P	605-4111	10.33	605-5098	12.33	605-6111	11.86	605-7108	11.33
24-10S	605-4112	14.75	605-5099	11.12	605-6112	14.81	605-7109	14.53
24-10P	605-4113	12.83	605-5100	14.80	605-6113	13.58	605-7110	13.83
24-12S	605-4114	13.75	605-5101	14.53	605-6114	14.18	605-7111	14.75
24-12P	605-4115	11.53	605-5102	13.53	605-6115	12.64	605-7112	12.53
24-20S	605-4116	9.32	605-5103	11.33	605-6116	11.24	605-7113	10.33
24-20P	605-4117	9.23	605-5104	11.23	605-6117	11.12	605-7114	10.23
24-27S	605-4118	8.20	605-5105	10.20	605-6118	14.50	605-7115	9.20
24-27P	605-4119	8.00	605-5106	9.93	605-6119	14.18	605-7116	8.93
24-28S	605-4120	12.23	605-5107	14.20	605-6120	13.19	605-7117	13.18
24-28P	605-4121	10.80	605-5108	12.70	605-6121	12.24	605-7118	11.85
28-1S	605-4122	14.75	605-5109	14.55	605-6122	14.80	605-7119	14.63
28-1P	605-4123	11.63	605-5110	12.63	605-6123	12.69	605-7120	12.78
28-2S	605-4124	11.10	605-5111	12.13	605-6124	12.37	605-7121	12.23
28-2P	605-4125	10.38	605-5112	11.43	605-6125	11.86	605-7122	11.58
28-9S	605-4126	11.95	605-5113	13.00	605-6126	12.93	605-7123	13.10
28-9P	605-4127	11.00	605-5114	12.03	605-6127	12.27	605-7124	12.13
28-11S	605-4128	14.18	605-5115	14.00	605-6128	14.43	605-7125	14.13
28-11P	605-4129	11.70	605-5116	12.78	605-6129	12.79	605-7126	12.83
28-12S	605-4130	14.18	605-5117	14.00	605-6130	14.43	605-7127	14.13
28-12P	605-4131	12.20	605-5118	13.18	605-6131	13.08	605-7128	13.35
28-15S	605-4132	14.50	605-5119	11.12	605-6132	15.40	605-7129	11.24
28-15P	605-4133	13.63	605-5120	14.73	605-6133	14.03	605-7130	14.78
28-16S	605-4134	12.20	605-5121	13.18	605-6134	13.08	605-7131	13.35
28-26P	605-4135	12.05	605-5122	13.10	605-6135	12.98	605-7132	13.18
28-17S	605-4136	11.00	605-5123	12.03	605-6136	12.27	605-7133	12.13
28-17P	605-4137	10.30	605-5124	11.33	605-6137	11.77	605-7134	11.33
28-18S	605-4138	10.80	605-5125	11.90	605-6138	12.17	605-7135	12.03
28-18P	605-4139	10.00	605-5126	11.05	605-6139	11.62	605-7136	11.15
28-19S	605-4140	12.20	605-5127	13.18	605-6140	13.08	605-7137	13.35
28-19P	605-4141	10.15	605-5128	11.15	605-6141	11.72	605-7138	11.30
28-20S	605-4142	13.10	605-5129	14.18	605-6142	13.71	605-7139	14.25
28-20P	605-4143	11.85	605-5130	12.83	605-6143	12.84	605-7140	13.00
28-21S	605-4144	14.63	605-5131	11.31	605-6144	15.51	605-7141	11.39
28-21P	605-4145	14.03	605-5132	13.85	605-6145	14.30	605-7142	14.00
32-7S	605-4146	13.99	605-5133	13.96	605-6146	19.72	605-7143	14.56
32-7P	605-4147	6.75	605-5134	11.37	605-6147	17.05	605-7144	11.87
32-10S	605-4148	9.25	605-5135	15.73	605-6148	21.66	605-7145	16.43
36-10P	605-4149	8.61	605-5136	14.65	605-6149	20.64	605-7146	15.40

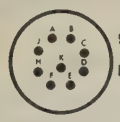
Miniature Connectors and Accessories

SERIES 165 MS-TYPE MINIATURE CONNECTORS



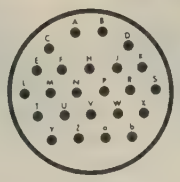


5 #20 Contacts
Plug for
Jacketed Cable

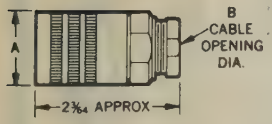


9 #20 Contacts
Receptacle

12 #20 Contacts
Plug

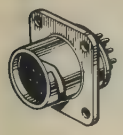


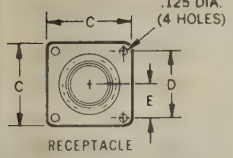
24 #20 Contacts
Square Flange
Receptacle



- **About ⅓ the Size and Weight of Standard MS Connectors**
- **Bayonet Coupling for Quick Disconnect**
- **Cable Clamp Provides Strain Relief**

Pressure-proof and completely weather-proof miniature connectors. Widely used in instrumentation and miniaturized electronic equipment. These highly reliable connectors are available in both small and large shell sizes providing enough variation for a wide range of applications. Contacts are gold over silver plating. Aluminum shells feature quick bayonet coupling. Small receptacles mount in 1³⁄₁₆" hole; secure through four ⅛" holes on 2³⁵⁄₆₄" centers. Large receptacles require 1⁵⁄₁₆" hole with four ⅛" holes on 1⁵⁄₁₆" centers. Plugs are 2¹⁄₁₆" long. Small plugs are ⁵⁷⁄₆₄" dia.; large plugs are 1³⁄₆₄" in dia. Rated 500 volts rms, except *600 volts. All have strain relief clamps. Shells are aluminum with neutral-color chromium finish. Dielectric material is diallyl phthalate. All have "O" ring seals. Av. shpg. wt. 3 oz.





DIMENSIONS (Inches)

	A	B	C	D	E
Small	⁵⁷⁄₆₄	⅜	1¹¹⁄₁₆	²³⁄₃₂	²⁵⁄₆₄
Large	1³⁄₆₄	²¹⁄₃₂	1³⁄₁₆	³¹⁄₃₂	³¹⁄₆₄

SMALL SHELL—5 No. 20 CONTACTS

Stock No.	Type No.	Contacts and Ampere Rating	Description	EACH 1-9	EACH 10-49	EACH 50-Up
713-5570	165-33	*5 @ 7.5	Male Plug	12.73	10.18	6.06
713-5573	165-34	*5 @ 7.5	Female Plug	14.90	9.35	7.44
713-5576	165-35	*5 @ 7.5	Male Recept.	8.58	6.86	4.08
713-5579	165-36	*5 @ 7.5	Female Recept.	11.50	9.20	5.47

SMALL SHELL—9 No. 20 CONTACTS

713-5526	165-13	9 @ 7.5	Male Plug	13.03	10.42	6.20
713-5529	165-14	9 @ 7.5	Female Plug	11.37	10.69	8.11
713-5532	165-15	9 @ 7.5	Male Recept.	9.23	7.38	4.38
713-5535	165-16	9 @ 7.5	Female Recept.	13.15	10.52	6.26

SMALL SHELL—12 No. 20 CONTACTS

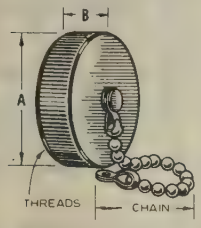
713-5516	165-9	12 @ 7.5	Male Plug	14.80	11.84	7.05
713-5518	165-10	12 @ 7.5	Female Plug	12.86	12.08	9.16
713-5520	165-11	12 @ 7.5	Male Recept.	11.00	8.80	5.24
713-5523	165-12	12 @ 7.5	Female Recept.	14.58	9.60	7.28

LARGE SHELL—24 No. 20 CONTACTS

713-5550	165-25	24 @ 7.5	Male Plug	17.59	16.60	12.53
713-5553	165-26	24 @ 7.5	Female Plug	20.27	19.04	14.44
713-5556	165-27	24 @ 7.5	Male Recept.	14.07	11.69	8.86
713-5559	165-28	24 @ 7.5	Female Recept.	15.08	14.16	10.74

8

MS TYPE 9760 DUST CAPS FOR RECEPTACLES

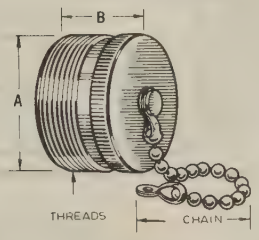


Soft Rubber Disc Seats on Shell Forming Watertight Joint

Provide protection against live circuits and keep out dirt and dust when connector is not in use. Have internal threads especially designed for use with Series MS3100A, MS3101A and MS3102A receptacles. Beaded chain. A soft rubber disc seats on the connector shell forming a watertight joint. Cadmium olive drab finish. Av. shpg. wt. 2 oz.

Stock No.	MS Type	Fits Shell	Dimensions—Inches Threads	A	B	EACH 1-9	EACH 10-49	EACH 50-Up
712-2538	9760-10	10S, 10SL	⅝—24	¹³⁄₁₆	⁷⁄₁₆	1.49	1.19	.95
712-2540	9760-12	12, 12S, 12SL	¾—20	¹⁵⁄₁₆	⁷⁄₁₆	1.32	1.06	.85
712-2542	9760-14	14, 14S	⅞—20	1¹⁄₁₆	⁷⁄₁₆	1.43	1.14	.91
712-2544	9760-16	16, 16S	1—20	1⅛	⁷⁄₁₆	1.65	1.32	1.06
712-2546	9760-18	18	1⅛—18	1⁵⁄₁₆	⁷⁄₁₆	3.38	2.70	2.16
712-2548	9760-20	20	1¼—18	1⁷⁄₁₆	⁷⁄₁₆	3.27	2.62	2.10
712-2550	9760-22	22	1⅜—18	1⁹⁄₁₆	⁷⁄₁₆	5.06	4.05	3.24
712-2552	9760-24	24	1½—18	1¹¹⁄₁₆	⁷⁄₁₆	5.86	4.69	3.75
712-2554	9760-28	28	1¾—18	1⁵⁹⁄₆₄	½	1.84	1.47	1.18
712-2556	9760-32	32	2—18	2³⁄₁₆	½	2.26	1.81	1.45
712-2558	9760-36	36	2¼—16	2⁷⁄₁₆	½	2.34	1.87	1.50

MS TYPE 9760 DUST CAPS FOR PLUGS



For Use on All Plugs Where a Coupling Ring is Provided

Male caps and chains especially designed for Series MS3106 and MS3108 plugs. Have external threads and are used on all plugs where a coupling ring is provided. Provide excellent protection against live circuits in a wide variety of applications. Beaded chain. Have cadmium olive drab finish. Av. shpg. wt. 2 oz.

Stock No.	MS Type	Fits Shell	Dimensions—Inches Threads	A	B	EACH 1-9	EACH 10-49	EACH 50-Up
712-2539	9760-10P	10S, 10SL	⅝—24	⅝	²¹⁄₃₂	1.76	1.41	1.13
712-2543	9760-14P	14, 14S	⅞—20	⅞	²¹⁄₃₂	2.23	1.78	1.42
712-2545	9760-16P	16, 16S	1—20	1	²¹⁄₃₂	2.53	2.02	1.62
712-2547	9760-18P	18	1⅛—18	1⅛	²¹⁄₃₂	3.16	2.53	2.02
712-2549	9760-20P	20	1¼—18	1¼	²¹⁄₃₂	3.25	2.60	2.08
712-2551	9760-22P	22	1⅜—18	1⅜	²¹⁄₃₂	3.38	2.70	2.16
712-2553	9760-24P	24	1½—18	1½	²¹⁄₃₂	4.02	3.22	2.58
712-2555	9760-28P	28	1¾—18	1¾	²¹⁄₃₂	4.35	3.48	2.78
712-2559	9760-36P	36	2¼—16	2¼	²¹⁄₃₂	7.95	6.36	5.09

CABLE CLAMPS

SERIES 3057. For jacketed cable or wires protected by tubing. Supports at plug or receptacle. Use with rubber bushing for firm grip. *Step-down. Wt. 3½ oz.

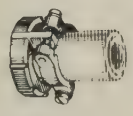
Stock No.	MS Type 3057	Fits Shell	EACH 1-9	EACH 10-49	EACH 50-Up
712-2500	3057-3	8S, 10S	2.28	1.82	1.46
712-2501	3057-4	12, 12S	2.30	1.84	1.47
712-2503	3057-6	14, 14S	2.40	1.92	1.54
712-2505	3057-8	16, 16S	2.60	2.08	1.66
712-2507	3057-10	18	2.20	1.76	1.41
712-2533	97-3057-10-6*	18	3.10	2.48	1.98
712-2509	3057-12	20, 22	2.50	2.00	1.60
712-2534	97-3057-12-6*	20, 22	3.16	2.53	2.02
712-2511	3057-16	24, 28	2.45	1.96	1.57
712-2513	3057-20	32	3.45	2.76	2.21
712-2515	3057-24	36	3.55	2.84	2.27

AN3420 TELESCOPING BOOTS

Rubber bushing designed for MS3057A cable clamp. Protects wire bundles and unjacketed cables from possible damage by cable clamp. Telescope for use with cable too small in relation to connector used. Shpg. wt. 1½ oz.

Stock No.	Type No.	Cable O.D.	EACH 1-9	EACH 10-49	EACH 50-Up
712-2579	9779-513-3	0.130	.37	.30	.24
712-2580	9779-513-4	0.220	.39	.31	.25
712-2581	9779-513-6	0.312	.41	.33	.26
712-2582	9779-513-8	0.437	.34	.27	.22
712-2583	9779-513-10	0.562	.34	.27	.22
712-2584	9779-513-12	0.625	.39	.31	.25
712-2585	9779-513-16	0.750	.50	.40	.32
712-2586	9779-513-20	0.937	.78	.62	.50
712-2587	9779-513-24	1.250	.78	.62	.50

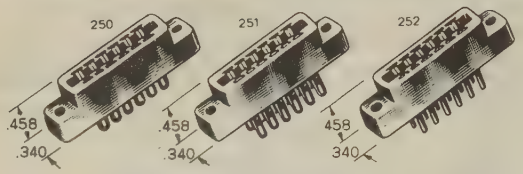
MS3057A CABLE CLAMP AND BOOT



Strong, lightweight. Both clamping halves float so that cable is always centered for maximum strain relief. AN3420 boot provides support and weatherproofing. Extra boots may be used for small cables. Shpg. wt. 5 oz.

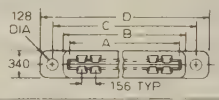
Stock No.	MS Type	Fits Shell	EACH 1-9	EACH 10-49	EACH 50-Up
712-2502	3057-4A	10SL, 12, 12	2.63	2.10	1.68
712-2504	3057-6A	12SL, 14, 14	2.75	2.20	1.76
712-2506	3057-8A	16, 16S	2.95	2.36	1.89
712-2508	3057-10A	18	2.50	2.00	1.60
712-2510	3057-12A	20, 22	2.50	2.00	1.60
712-2512	3057-16A	24, 28	2.68	2.14	1.71
712-2514	3057-20A	32	3.90	3.12	2.50
712-2516	3057-24A	36	3.90	3.12	2.50

MIL & Comm. PC Card-Edge Connectors: .156″ Spacing



For 1/16″ PC boards. Minimum card wear, low insertion force, positive contact. Phosphor-bronze contacts with .00003″ min. Sel-Rex gold-plate. Glass-filled diallyl phthalate insulation, SDG-F per **MIL-M-14F.** Two flexible surfaces offset irregularities in PC boards. Plastic polarizing key available (listed separately). 830 VAC RMS, 5 Amps. **Series 250, 251:** solder tab contacts. "M" in type number indicates beryllium copper contacts with 50 micro-inches gold finish per **MIL-C-2109.** Av. shpg. wt., 2 oz.

DIMENSIONAL DATA



NO OF CONTACT POSITIONS	ALL DIMENSIONS IN INCHES A	B	C	D
6	1.100	1.239	1.531	1.785
10	1.724	1.846	2.156	2.410
12	2.036	2.177	2.469	2.723
15	2.504	2.645	2.937	3.191
18	2.972	3.114	3.406	3.660
22	3.596	3.739	4.031	4.285
25	4.067	4.208	4.500	4.754

250 SINGLE-READOUT—SOLDER TABS

Stock No.	Mfrs. Type	Contact Pos.	No. of Cont.	EACH 1-9	10-24	25-49	50-Up
750-1100	50- 6A-20	6	6	1.82	1.55	1.23	1.05
750-1105	50-10A-20	10	10	2.48	2.15	1.72	1.42
750-1106	50-10A-20M	10	10	4.05	3.46	2.77	2.31
750-1110	50-12A-20	12	12	2.83	2.43	2.03	1.62
750-1119	50-15A-20	15	15	3.84	2.89	2.29	1.93
750-1120	50-15A-20M	15	15	5.69	4.80	3.85	3.21
750-1124	50-18A-20	18	18	3.93	3.33	2.65	2.21
750R1137	50-22A-20	22	22	4.64	3.92	3.14	2.61
750-1138	50-22A-20M	22	22	7.90	6.75	5.39	4.49
750-1155	50-25A-20	25	25	5.51	4.68	3.73	3.11

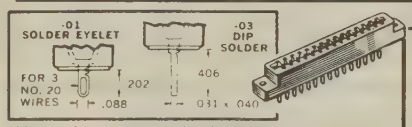
251 DOUBLE-READOUT—SOLDER TABS

750-1111	50-12A-30	6	12	1.82	1.55	1.23	1.05
750-1129	50-20A-30	10	20	2.48	2.15	1.72	1.42
750-1130	50-20A-30M	10	20	3.85	3.29	2.63	2.20
750R1150	50-24A-30	12	24	2.83	2.43	2.03	1.62
750R1157	50-30A-30	15	30	3.38	2.89	2.29	1.93
750-1158	50-30A-30M	15	30	5.42	4.57	3.67	3.06
750-1166	50-36A-30M	18	36	6.33	5.38	4.28	3.57
750R1173	50-44A-30	22	44	4.64	3.92	3.14	2.61
750-1174	50-44A-30M	22	44	7.53	6.43	5.14	4.27
750-1185	50-50A-30	25	50	5.52	4.68	3.73	3.11

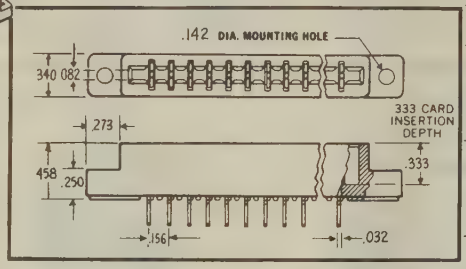
252 DOUBLE-READOUT—DIP SOLDER TAILS

750-1134	50-20B-10	10	20	2.48	2.15	1.72	1.42
750-1177	50-44B-10	22	44	4.64	3.92	3.14	2.61

SERIES 143 PC CONNECTORS

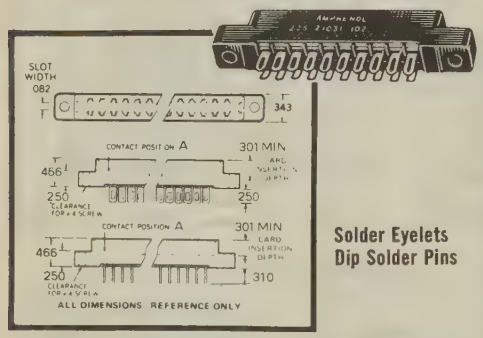


Mate with std. .054-.070″ PC board and Series 133 plugs below. Long spring base of contact prevents "setting". Drop at 2 amps is approx. 5 millivolts. Can be polarized by 143-953 key when used with 133 Series. Last two digits in type number indicate tail type. **Type 01:** eyelet contact. **Type 03:** .040x.400″ pin contact, gold-flashed albaloy contacts. Rated 600V rms at 5 amps. Breakdown: 5400 VDC at sea level. Av. shpg. wt., 3 oz.



Stock No.	Mfr's Type	Contacts	EACH 1-9	10-49	50-99	100-Up
713-4800	143-006-01	6	2.78	2.22	1.70	1.30
713R4809	143-010-01	10	2.10	1.68	1.34	.99
713R4816	143-012-01	12	2.28	1.82	1.46	1.07
713R4825	143-015-01	15	2.63	2.10	1.68	1.23
713-4833	143-018-01	18	3.08	2.46	1.97	1.45
713R4841	143-022-01	22	3.73	2.98	2.39	1.75
713-4802	143-006-03	6	2.78	2.22	1.78	1.30
713-4811	143-010-03	10	2.10	1.68	1.34	.99
713-4827	143-015-03	15	3.63	2.90	2.32	1.71
713-4835	143-018-03	18	3.08	2.46	1.97	1.45
713-4843	143-022-03	22	3.73	2.98	2.39	1.75
713-4895	143-953	Polar Key	.10	.08	.064	.048

SERIES 225 .156″ CENTERS PC CONNECTORS

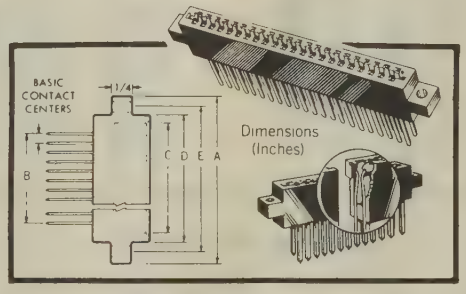


Solder Eyelets
Dip Solder Pins

In 117-suffix economy line. Bifurcated bellows contacts with gold plating over copper. Rated 5 amps at 600 VAC. Contacts on .156″ centers with .140″ row spacing. Phenolic dielectric, 5000 megohms insul. resistance. Fit boards .054″ to .071″ thick. Card slot provides guidance for misaligned boards. Solder eyelet tails accept up to two #18 AWG wires. Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	Contacts	Tail	EACH 1-9	10-49	50-99	100-Up
713-6132	225-20621-401	12	Eye	2.63	2.10	1.68	1.31
713-6134	225-21021-401	20	Eye	3.48	2.78	2.23	1.74
713-6136	225-21521-401	30	Eye	4.13	3.30	2.64	2.06
713-6138	225-21821-401	36	Eye	4.78	3.82	3.06	2.39
713R6140	225-22221-401	44	Eye	3.88	3.10	2.48	1.94
713-6142	225-22821-401	56	Eye	7.93	6.34	5.07	3.96
713-6144	225-23621-401	72	Eye	9.23	7.38	5.90	4.61
713-6146	225-24321-401	86	Eye	10.58	8.46	6.77	5.29

SERIES 261 WIRE-WRAP PC CONNECTORS



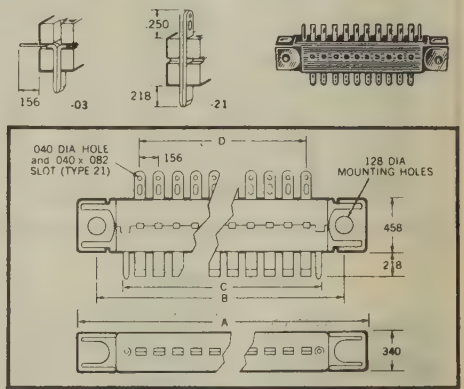
Dual readout of double-sided PC boards. Tail is sufficient for three wire wraps plus bussing. Gold-plated phosphor bronze contacts rated 5.0 amps. Voltage rating: 300 V rms at sea level. Min. voltage breakdown: 1800 V rms. Contact res.: 6.0 milliohms max. Key replaces one pr. of contacts. .025″ square tail, 50001-type contact. 3 oz.

DIMENSIONS

Contacts	A	B	C	D	E
15	3.258	2.184	2.504	2.658	2.940
22	4.350	3.276	3.596	3.750	4.032

Stock No.	Mfr's Type	Contacts	EACH 1-9	10-49	50-99	100-Up
713-7418	261-15615-2	15	7.70	6.16	4.93	3.85
713R7420	261-15622-2	22	7.40	5.92	4.73	3.70

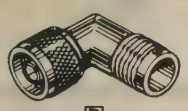
SERIES 133 156″ CENTER PC PLUGS



Mate with 143 Series above. Brass, cadmium plated guide pins; cadmium plated end caps; gold over albaloy plated brass contacts. Two .128″ holes for bolting to wiring board. Last two digits in type number indicate tail style. **Type 03:** .042″ d. contact. **Type 21:** eyelet tail. 600 V rms. 5 amps. 3250 VDC breakdown. Shpg. wt., 2 oz.

Stock No.	Mfr's Type	Contacts	EACH 1-9	10-49	50-99	100-Up
713-4712	133-010-21	10	4.65	3.72	2.98	2.33
713-4729	133-015-21	15	4.90	3.92	3.14	2.45
713-4743	133-022-21	22	8.05	6.44	5.15	4.03
713-4741	133-022-03	22	4.65	3.72	2.98	2.33

A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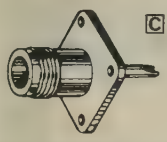
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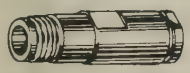
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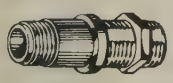
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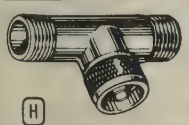
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27-2 I

27-3 J

27-4 K

WEATHERPROOF, TARNISH-RESISTANT CONNECTORS

TYPE N COAXIAL CONNECTORS

Medium size, weatherproof, threaded coupling units may be used in systems up to microwave. SWR is consistently low. Meet MIL specifications. Rated 1500 volts peak. Impedance: 50 ohms. †Weather proof and tarnish resistant; plated to take constant handling; resistant to abrasion. Connector installation is easy, especially in tight spots. Simplify and speed wiring changes with the combination of features available.

Stock No.	Military No.	Mfr's Type	Description	Fig.	For RG/U Cables	Lgth., In.,	EACH 1-9	10-24	25-99	100-Up
713-3311	UG-21B/U†	82-61	Plug	A	8, 9, 10	1⅜	2.58	2.06	1.65	1.35
713-3325	UG-21C/U	82-96	Plug	A	8, 9, 10	1⅜	4.38	3.50	2.80	2.30
713-3313	UG-23B/U	82-63	Jack	D	8, 9, 10	1 15/16	3.65	2.92	2.34	1.92
713-3314	UG-27A/U	82-64	Angle Adapter	B	.....	1 7/16	9.28	7.42	5.94	4.88
713-3328	UG-28A/U	82-99	"T" Adapter	H	.....	1¾	10.40	8.32	6.66	5.47
713-3315	UG-29A/U	83-65	Adapter	E	.....	1¾	5.63	4.50	3.60	2.96
713-3330	UG-29B/U	82-101	Adapter	E	.....	1¾	5.33	4.26	3.41	2.80
713-3316	UG-30/U	82-66	Bulkhead Adapter	G	.....	1⅜	10.48	8.38	6.70	5.51
713-3340	UG-57B/U	82-100	Adapter	F	.....	1 9/32	5.33	4.26	3.41	2.80
713-3336	UG-58A/U†	82-97	Panel Receptacle	C	.....	1 7/64	3.00	2.40	1.92	1.58
713-3302	UG-107A/U	82-36	"T" Adapter	H	.....	2	13.55	10.84	8.67	7.13
713-9762	UG-536B/U†	34025	Plug	A	55, 58	1⅜	3.43	2.74	2.19	1.80
713-3378	UG-680/U	82-811	Blukhd. Recept.	T	.....	1 3/64	6.45	5.16	4.13	3.39

TYPE HN COAXIAL CONNECTOR

For high voltage applications. Rated 1500 volts peak; 5000 volts rms dielectric. Standing Wave Ratio (SWR), 1.3. Frequency range, 0 to 4 GHz. Impedance, constant 50 ohms. Rexolite insulation with temp. limits from −55° to 85°C. Weatherproof.

Stock No.	Military No.	Mfr's Type	Description	Fig.	For RG/U Cables	Lgth., In.	EACH 1-9	10-24	25-99	100-Up
713-3303	UG-59A/U	82-38	Straight Plug	A	8, 9, 10	2⅜	11.90	9.52	7.62	6.09

TYPE C COAXIAL CONNECTORS

Constant 50-ohm impedance. Peak voltage rating: 1500 volts. Dielectric withstanding voltage: 3000 V rms. Low Standing Wave Ratio (SWR) up to 10 GHz. Weatherproof.

Stock No.	Military No.	Mfr's Type	Description	Fig.	For RG/U Cables	Lgth., In.	EACH 1-9	10-24	25-99	100-Up
713-3364	UG-568/U	82-504	Panel Receptacle	S	.....	1 3/32	4.33	3.46	2.77	2.27
713-3370	UG-573A/U	82-530	Plug	A	8, 9, 10	1 3/64	5.93	4.74	3.79	3.12

UHF COAXIAL CONNECTORS

Low-cost, general purpose connectors for applications up to 300 MHz, where constant impedance is not necessarily required. Meet government specifications. Peak voltage rating: 500 volts. Twin contact types are for use with 2-conductor coaxial cables. †Supplied with tarnish-resistant Astro-Plate® finish.

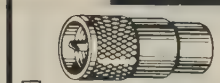
UHF SMALL SINGLE CONTACT

Stock No.	Military No.	Mfr's Type	Description	Fig.	For RG/U Cables	Lgth., In.,	EACH 1-9	10-24	25-99	100-Up
713-3550	UG-111/U†	83-750	Plug	L	59, 62, 71	1 1/16	1.98	1.58	1.26	1.04
713R3547	UG-175/U†	83-185	Reducing Adapter	P	25, 55, 58	1	.35	.28	.22	.18
713R3545	UG-176/U†	83-168	Reducing Adapter	P	59, 62, 71	1	.35	.28	.22	.18
713-3556	UG-230/U, 49482	83-776	Plug	L	55, 59, 62, 71	1 3/16	4.58	3.66	2.93	2.41
713-3507	UG-363/U,PL-274†	83-1F	Straight Adapter	R	.....	2	4.95	3.96	3.16	2.60
713-3503	UG-646/U,M-359†	83-1AP	Angle Adapter	M	.....	1 11/32	4.18	3.34	2.67	2.20
713-3523	M-358, 49119†	83-1T	"T" Adapter	H	.....	1⅝	5.00	4.00	3.20	2.63
713-3535	M-359A, 49192	83-58	Angle Adapter	M	.....	1 21/32	5.58	4.46	3.56	2.93
713R3512	PL-258, 49191†	83-1J	Straight Adapter	N	.....	1⅛	1.75	1.40	1.12	.92
713R3519	PL-259, 49190†	83-1SP	Plug	L	8-13, 63, 65	1½	1.02	.82	.64	.54
713-3562	PL-259, 49190†	83-822	Plug	L	8, 9	1½	2.10	1.69	1.35	1.10
713R3514	SO-239, 49194†	83-1R	Panel Receptacle	O	.....	1 1/16	.93	.74	.59	.49
713-3516	SO-239	83-1RTY	†Panel Receptacle	O	.....	....	2.00	1.60	1.28	1.05

"SUBMINAX" PUSH-ON AND SCREW-ON RF CONNECTORS

Feature full-size electrical characteristics in a space-saving design. Designed for subminiature coaxial cable. Low-resistance gold-plated bodies and contacts. Screw-on and push-on types cannot be intermixed; impedance must match 50-ohms. †Require 227-900 installation tool. Average shpg. wt. 1 oz.

Stock No.	Mfrs. Type	Fig.	Description	EACH 1-9	10-24	25-99	100-Up
713-0802	27-2†	I	Push-on	2.03	1.62	1.29	1.01
713-0803	27-3	J	Push-on	3.38	1.90	1.52	1.19
713-0804	27-4	K	Push-on	2.78	2.22	1.78	1.39
713-0806	27-6	U	Push-on	4.98	3.98	3.18	2.49
713-0807	27-7	W	Screw-on	1.85	1.48	1.18	.93
713-0808	27-8†	V	Screw-on	2.13	1.70	1.36	1.66
713-0809	27-9	—	Screw-on	1.68	1.34	1.07	.84
713-0811	27-11	X	Screw-on	4.58	3.66	2.92	2.29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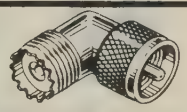
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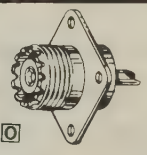
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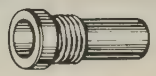
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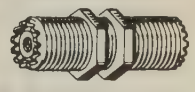
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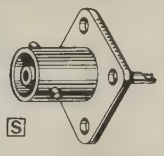
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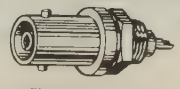
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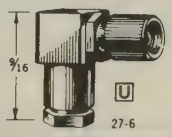
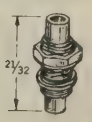


27-6 U

27-8 V

27-7 W

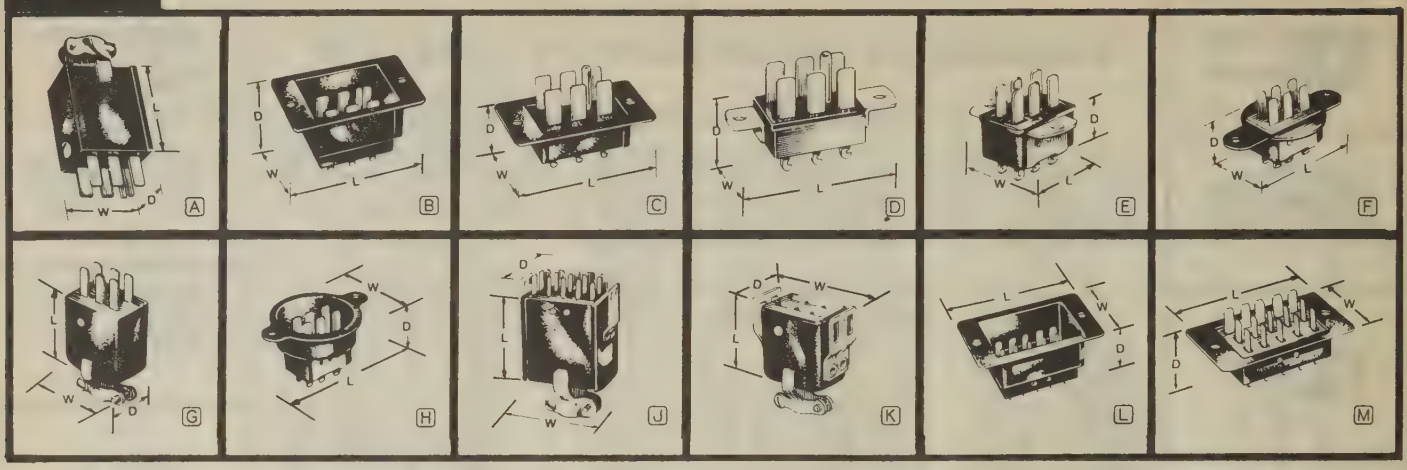


27-11 X

8

Alec Electron Says: Larger Quantity Price Breaks Available Upon Request

Chassis-Mounting Connectors



400 AND 2400 SERIES PLUGS AND SOCKETS

400 Series: Max. rating, 1100 V rms at 15 amps; 3750 watts max. on any contact. Polarized; for either cap or panel mounting. "Knife-switch" type contacts engage both sides of the flat plug contacts. Plug prongs are ¼" wide x 1/16" thick. Caps finished in black wrinkle; have insulating lining. Interchangeable with 2400 Series. 7 oz.

2400 Series: Max. rating, 1700 V rms at 10 amps (2500 watts on any contact). Socket contact makes contact over practically its entire length. Contacts are mounted into recessed pockets with phenolic barrier, on top and bottom side, greatly increasing the leakage path. Black phenolic body. 7 oz.

300 SERIES PLUGS AND SOCKETS

For light and medium duty. Polarized; suitable for either cap or panel mounting. Black phenolic body. "Knife-switch" type socket contacts engage both sides of the flat brass plug contacts. Snap-in socket contact permit external prewiring, and removal or replacement of individual contacts. Plug prongs are 5/32" wide x 3/64" thick. Caps have black wrinkle finish and insulating liners. Rated 730 V rms at 10 amps, under most conditions. When all contacts are carrying full current simultaneously, total rating is 7.5 amps (1875 watts) for 2-12 contacts, 4.5 amps (1125 watts) for 15-33 contacts. *2-contact units are round; others rectangular. 7 oz.

8

DISCOUNT SCHEDULE	Quantity	10-24	25-99	100-Up
	Discount	15%	35%	55%

400 AND 2400 SERIES

A CCT PLUGS WITH CABLE CLAMPS

Contacts	Mfr's Type	Dimensions, Inches L x W x D	Stock No.	EACH
4	P-404-CCT	1 23/32 x 1 1/16 x 1 1/4	750R0506	2.20
6	P-406-CCT	1 23/32 x 1 1/32 x 1 1/4	750R0512	2.53
8	P-408-CCT	1 23/32 x 1 13/16 x 1 1/2	750-0518	2.78
10	P-410-CCT	1 23/32 x 2 3/32 x 1 1/2	750-0524	3.25
12	P-412-CCT	1 23/32 x 2 13/16 x 1 1/2	750-0530	3.50
2	P-2402-CCT	1 23/32 x 3/8 x 1 1/4	750-0553	2.05
6	P-2406-CCT	1 23/32 x 1 1/32 x 1 1/2	750-0563	2.60
8	P-2408-CCT	1 23/32 x 1 13/16 x 1 1/2	750-0568	2.88
12	P-2412-CCT	1 23/32 x 2 13/16 x 1 1/4	750-0578	3.33

A CCT SOCKETS WITH CABLE CLAMPS

2	S-402-CCT	1 23/32 x 3/8 x 1 1/4	750-0708	2.20
4	S-404-CCT	1 23/32 x 1 1/16 x 1 1/2	750-0714	2.60
6	S-406-CCT	1 23/32 x 1 1/32 x 1 1/2	750R0720	3.00
8	S-408-CCT	1 23/32 x 1 13/16 x 1 1/2	750-0726	3.48
12	S-412-CCT	1 23/32 x 2 13/16 x 1 1/2	750-0738	4.28
12	S-2412-CCT	1 23/32 x 2 13/16 x 1 1/4	750-0786	3.63

B DB RECESSED PLUGS FOR CHASSIS MOUNTING

4	P-404-DB	2 3/16 x 1 3/16 x 1 1/32	750-0507	1.93
6	P-406-DB	2 3/16 x 1 3/16 x 1 1/32	750-0511	2.20
8	P-408-DB	3 1/16 x 1 3/16 x 1 1/32	750-0519	2.53
12	P-412-DB	3 1/16 x 1 3/16 x 1 1/32	750-0531	3.20

B DB RECESSED SOCKETS FOR CHASSIS MOUNTING

4	S-2404-DB	2 3/16 x 1 3/16 x 1 1/32	750-0767	2.03
6	S-2406-DB	2 3/16 x 1 3/16 x 1 1/32	750-0772	2.30
12	S-2412-DB	3 1/16 x 1 3/16 x 1 1/32	750-0787	3.08

C SB FLUSH SOCKETS FOR CHASSIS MOUNTING

4	S-404-SB	1 13/16 x 1 3/32 x 7/16	750-0717	2.18
6	S-406-SB	2 3/16 x 1 3/32 x 7/16	750-0723	2.60
8	S-408-SB	2 1/16 x 1 3/32 x 7/16	750-0729	3.03

D AB SOCKETS WITH ANGLE BRACKETS

4	S-404-AB	2 1/32 x 1 x 1/2	750-0712	1.68
6	S-406-AB	2 13/32 x 1 x 1/2	750-0718	2.15
8	S-408-AB	2 25/32 x 1 x 1/2	750-0724	2.53
12	S-412-AB	3 25/32 x 1 x 1/2	750-0736	3.35

E AB PLUGS FOR CHASSIS MOUNTING

Contacts	Mfr's Type	Dimensions, Inches L x W x D	Stock No.	EACH
2*	P-302-AB	21/32 dia. x 1 7/32 x 7/16	750-0404	.48
3	P-303-AB	1 x 1 1/16 x 7/16	750-0410	.53
4	P-304-AB	3/4 x 1 5/16 x 7/16	750-0416	.58
6	P-306-AB	1 x 1 5/16 x 7/16	750-0422	.78
10	P-310-AB	1 5/16 x 1 5/16 x 7/16	750-0436	1.03
12	P-312-AB	1 1/4 x 1 5/16 x 7/16	750-0442	1.13
15	P-315-AB	1 5/8 x 1 1/16 x 7/16	750-0449	1.43

E AB SOCKETS FOR CHASSIS MOUNTING

2*	S-302-AB	21/32 dia. x 1 7/32 x 7/32	750R0609	.50
3	S-303-AB	1 x 1 1/16 x 7/16	750-0618	.55
4	S-304-AB	3/4 x 1 5/16 x 7/16	750R0624	.70
6	S-306-AB	1 x 1 5/16 x 7/16	750-0630	.80
8	S-308-AB	1 1/4 x 1 5/16 x 7/16	750-0637	1.03
10	S-310-AB	1 5/16 x 1 5/16 x 7/16	750-0644	1.18
12	S-312-AB	1 1/4 x 1 5/16 x 7/16	750-0650	1.30
15	S-315-AB	1 5/8 x 1 1/16 x 7/16	750-0657	1.63
18	S-318-AB	1 13/16 x 1 1/16 x 7/16	750-0664	1.98
24	S-324-AB	2 5/16 x 1 1/16 x 7/16	750-0678	2.88

F CCT PLUGS WITH CABLE CLAMPS

2*	P-302-CCT	9/64 x 21/32 dia.	750R0405	1.03
3	P-303-CCT	5/64 x 1 x 7/16	750R0411	1.13
4	P-304-CCT	9/64 x 3/4 x 1 1/16	750R0417	1.20
6	P-306-CCT	1 5/64 x 1 x 1 1/16	750R0424	1.28
8	P-308-CCT	1 5/64 x 1 1/4 x 1 1/16	750R0431	1.40
10	P-310-CCT	1 13/64 x 1 5/16 x 1 1/16	750-0438	1.50
12	P-312-CCT	1 13/64 x 1 1/4 x 1 5/16	750R0444	1.60
15	P-315-CCT	1 17/32 x 1 1/16 x 1 1/8	750-0451	2.20
18	P-318-CCT	1 17/32 x 2 x 1 1/8	750-0458	2.55
21	P-321-CCT	1 17/32 x 2 5/16 x 1 1/8	750-0465	3.05
24	P-324-CCT	1 17/32 x 2 5/8 x 1 1/8	750-0472	3.58
33	P-333-CCT	1 17/32 x 3 5/16 x 1 1/8	750-0493	5.03

F CCT SOCKETS WITH CABLE CLAMPS

2*	S-302-CCT	9/64 x 21/32 dia.	750R0610	1.05
3	S-303-CCT	5/64 x 1 x 7/16	750-0619	1.13
4	S-304-CCT	9/64 x 3/4 x 1 1/16	750R0625	1.20
6	S-306-CCT	1 5/64 x 1 x 1 1/16	750R0632	1.38
8	S-308-CCT	1 5/64 x 1 1/4 x 1 1/16	750-0639	1.48
10	S-310-CCT	1 13/64 x 1 5/16 x 1 1/16	750-0646	1.63
12	S-312-CCT	1 13/64 x 1 1/4 x 1 5/16	750R0652	1.93
15	S-315-CCT	1 17/32 x 1 1/16 x 1 1/8	750-0659	2.45
18	S-318-CCT	1 17/32 x 2 x 1 1/8	750-0666	2.75
21	S-321-CCT	1 17/32 x 2 5/16 x 1 1/8	750-0673	3.30
24	S-324-CCT	1 17/32 x 2 5/8 x 1 1/8	750-0680	3.73
27	S-327-CCT	1 17/32 x 1 13/16 x 1 1/8	750-0687	4.25
30	S-330-CCT	1 17/32 x 3 1/4 x 1 1/8	750-0694	4.83
33	S-333-CCT	1 17/32 x 3 5/16 x 1 1/8	750-0701	5.30

300 SERIES

G FP PLUG WITH FLUSH PLATE

Contacts	Mfr's Type	Dimensions, Inches LxWxD	Stock No.	EACH
6	P-306-FP	2 1/16 x 1 1/4 x 3/4	750-0427	1.10
8	P-308-FP	2 5/16 x 1 3/4 x 3/4	750-0434	1.20

G FP SOCKETS WITH FLUSH PLATE

4	S-304-FP	2 1/16 x 1 1/4 x 3/4	750-0628	.95
6	S-306-FP	2 1/16 x 1 1/4 x 3/4	750-0635	1.13
8	S-308-FP	2 5/16 x 1 3/4 x 3/4	750-0642	1.28

H RP PLUGS WITH RECESSED PLATES

2*	P-302-RP	2 1/16 x 1 1/2 x 5 1/64	750-0409	.88
4	P-304-RP	2 1/16 x 1 1/2 x 5 1/64	750-0415	1.05
6	P-306-RP	2 1/16 x 1 1/2 x 5 1/64	750-0428	1.20

H RP SOCKETS WITH RECESSED PLATES

2*	S-302-RP	2 1/16 x 1 1/2 x 5 1/64	750-0614	1.03
6	S-306-RP	2 1/16 x 1 1/2 x 5 1/64	750-0636	1.23

J CCT-L PLUGS WITH CABLE CLAMPS AND LATCHES

2*	P-302-CCT-L	9/64 x 21/32 dia.	750-0406	1.23
3	P-303-CCT-L	9/64 x 1 x 7/16	750-0412	1.30
4	P-304-CCT-L	5/64 x 3/4 x 1 1/16	750-0418	1.40
6	P-306-CCT-L	1 5/64 x 1 x 1 1/16	750-0425	1.50
8	P-308-CCT-L	1 5/64 x 1 1/4 x 1 1/16	750-0432	1.60
10	P-310-CCT-L	1 13/64 x 1 5/16 x 1 1/16	750-0439	1.80
12	P-312-CCT-L	1 13/64 x 1 1/4 x 1 5/16	750-0445	1.93

K CCT-K SOCKETS WITH KEEPERS

2*	S-302-CCT-K	9/64 x 21/32 dia.	750-0611	1.25
3	S-303-CCT-K	9/64 x 1 x 7/16	750-0620	1.38
4	S-304-CCT-K	9/64 x 3/4 x 7/16	750-0626	1.43
6	S-306-CCT-K	1 5/64 x 1 x 1 1/16	750-0633	1.55
8	S-308-CCT-K	1 5/64 x 1 1/4 x 1 1/16	750-0640	1.68
10	S-310-CCT-K	1 13/64 x 1 5/16 x 1 1/16	750-0647	1.98
12	S-312-CCT-K	1 13/64 x 1 1/4 x 1 5/16	750-0653	2.18

L DB RECESSED SOCKETS FOR CHASSIS MOUNTING

6	S-306-DB	2 7/64 x 1 7/32 x 5 5/64	750-0634	1.43
8	S-308-DB	2 7/64 x 1 7/32 x 5 5/64	750-0641	1.58
12	S-312-DB	2 7/64 x 1 7/32 x 5 5/64	750-0654	2.00
15	S-315-DB	2 13/64 x 1 13/32 x 1 7/32	750-0661	1.63

M SB FLUSH SOCKETS FOR CHASSIS MOUNTING

18	S-318-SB	2 25/64 x 1 3/32 x 7/16	750-0670	2.65
21	S-321-SB	3 1/16 x 1 3/32 x 7/16	750-0677	3.20

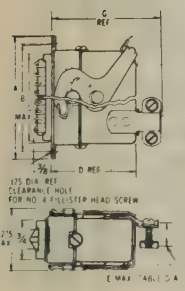
Multi-Circuit Ribbon Connectors

BLUE RIBBON CONNECTORS

• Self-Cleaning Contacts **• Matching Positive Polarization** **• For Heavy-Duty Applications**

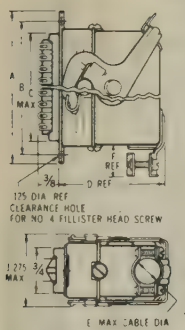
For multi-circuit connection, switching and re-routing. Gold-plated spring contacts. Low insertion and removal forces. Diallyl phthalate dielectric meets government specs. Stainless steel mounting plates. *End cable outlet; †side cable outlet. S in Type No. indicates socket contacts; P, plug. For wire up to #16. Rated 5 amps @ 750 VDC. Av. shpg. wt. 4 oz.

CABLE OR CHASSIS TERMINATION CONNECTORS



A CABLE TERMINATION

Contacts	Stock No.	Mfr's Type	EACH 1-4	5-9	10-49	50-Up
8	713-0629	26-4301-8S*	13.73	10.98	8.78	7.52
8	713-0647	26-4501-8S†	12.68	10.14	8.11	6.95
8	713-0628	26-4301-8P*	11.28	9.02	7.22	6.18
16	713-0631	26-4301-16S*	11.55	9.24	8.85	8.37
16	713-0649	26-4501-16S†	14.00	11.20	8.96	8.37
16	713-0630	26-4301-16P*	14.18	11.34	9.07	7.77
16	713-0648	26-4501-16P†	14.18	11.34	9.07	7.77
24	713-0633	26-4301-24S*	16.41	13.15	10.52	9.78
24	713-0651	26-4501-24S†	15.86	12.69	10.15	9.45
24	713-0632	26-4301-24P*	14.61	11.69	9.35	8.70
32	713-0635	26-4301-32S*	17.82	14.26	11.41	10.59
32	713-0653	26-4501-32S†	17.54	14.03	11.22	10.43
32	713-0634	26-4301-32P*	13.42	10.74	10.05	9.69



B CHASSIS TERMINATION

8	713-0637	26-4401-8P	6.80	5.44	4.35	3.73
8	713-0638	26-4401-8S	8.30	6.64	5.31	4.55
16	713-0639	26-4401-16P	8.98	7.18	5.74	4.92
16	713-0640	26-4401-16S	10.12	8.10	6.48	5.55
24	713-0641	26-4401-24P	10.08	8.06	6.45	5.52
24	713-0642	26-4401-24S	11.45	9.16	7.33	6.27
32	713-0643	26-4401-32P	11.23	8.98	7.18	6.15
32	713-0644	26-4401-32S	12.93	10.34	8.27	7.08

SERIES 26 BARRIER POLARIZED CONNECTORS—KEYED SHELLS

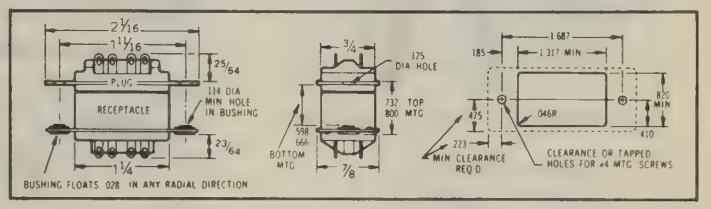
MALE

Contacts	Stock No.	Mfr's Type	EACH 1-4	5-9	10-49	50-Up
16	713-0615	26-4101-16P	6.63	5.30	4.24	3.63
24	713-0616	26-4101-24P	7.65	6.12	4.90	4.19
32	713-0617	26-4101-32P	8.75	7.00	5.60	4.80

FEMALE

16	713-0624	26-4201-16S	6.85	5.48	4.38	3.75
24	713-0625	26-4201-24S	8.20	6.56	5.25	4.49
32	713-0626	26-4201-32S	9.58	7.66	6.13	5.25

SERIES 26 BARRIER POLARIZED CONNECTORS



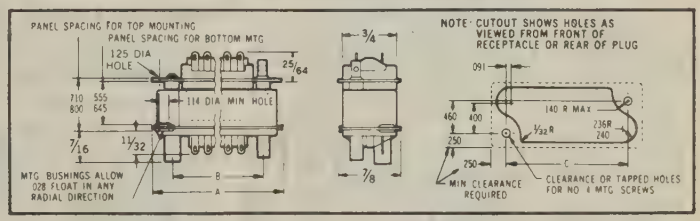
MALE

Contacts	Stock No.	Mfr's Type	EACH 1-4	5-9	10-49	50-Up
8	713-0603	26-182	2.45	1.96	1.57	1.34
8	713-0610	26 4100-8P	2.23	1.78	1.42	1.22
16	713-0611	26-4100-16P	3.45	2.76	2.21	1.89
24	713-0612	26-4100 24P	5.03	4.02	3.22	2.75
32	713-0613	26 4100-32P	5.83	4.66	3.73	3.19

FEMALE

8	713-0604	26-183	3.85	3.08	2.46	2.11
8	713-0618	26-4200 8S	3.63	2.90	2.32	1.99
16	713R0619	26-4200-16S	4.33	3.46	2.77	2.37
24	713-0620	26-4200-24S	5.15	4.12	3.30	2.82
32	7130621	26-4200-32S	7.48	5.98	4.78	4.10

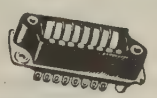
SERIES 26 PIN-POLARIZED CONNECTORS



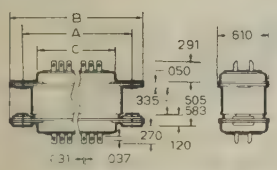
MALE

Contacts	Stock No.	Mfr's Type	EACH 1-4	5-9	10-49	50-Up
16	713-0600	26-159-16	4.45	3.56	2.85	2.44
24	713-0601	26-159 24	5.05	4.04	3.23	2.77
32	713-0602	26-159-32	6.38	5.10	4.08	3.49

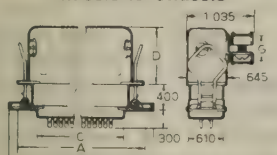
FEMALE



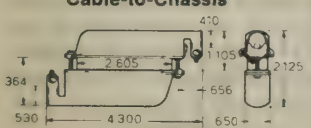
16	713-0605	26-190 16	5.70	4.56	3.65	3.12
24	713-0606	26-190-24	6.80	5.44	4.35	3.73
32	713-0607	26-190-32	8.03	6.42	5.14	4.40



Chassis-to-Chassis



Cable-to-Chassis

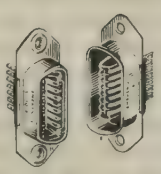


Cable-to-Cable

SERIES 57 MICRO RIBBON® CONNECTORS

RACK AND PANEL CONNECTORS

Especially Designed for Use in Miniaturized Space Age Projects



These extremely small connectors provide increased reliability in miniaturized programs particularly in airborne electronics and computer projects. Permit routing a great many circuits through a few connectors. Self-cleaning for long life. Precision molded Diallyl Phthalate inserts. Gold plated contacts rated 5 amps at 700 VDC. High impact strength. Float bushings allow .020". Contact tails have eyelets for soldering. Clear iridite-finished brass shells. Wire up to #22. Av. shpg wt. 2 oz

CHASSIS-TO-CHASSIS CONNECTORS

Stock No.	Mfr's Type	Description	EACH 1-9	10-49	50-Up
713-1700	57-10140	14-Contact Plug	2.85	2.28	1.82
713-1711	57-20140	14-Contact Socket	2.98	2.38	1.91
713-1702	57-10240	24-Contact Plug	3.85	3.08	2.46
713-1713	57-20240	24-Contact Socket	4.03	3.22	2.58
713-1704	57-10360	36-Contact Plug	4.33	3.46	2.77
713-1715	57-20360	36-Contact Socket	4.70	3.76	3.00
713-1706	57-10500	50-Contact Plug	6.08	4.86	3.89
713-1717	57-20500	50-Contact Socket	6.25	5.00	4.00

CABLE-TO-CHASSIS LATCHING CONNECTORS

Sturdy spring-type latches on the receptacles are guided and held by cut-outs in the plug flanges. Cadmium-plated brass shells; clear chromate finish. Wt. 2 oz

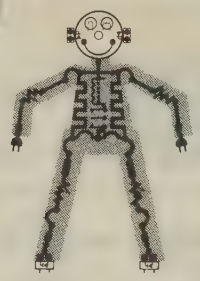
Stock No.	Mfr's Type	Description	EACH 1-9	10-49	50 Up
713R1722	57 30140	14-Contact Plug	5.48	4.38	3.51
713R1726	57-40140	14-Contact Socket	3.68	2.94	2.36
713R1723	57 30240	24-Contact Plug	6.05	4.84	3.87
713R1727	57 40240	24-Contact Socket	4.38	3.50	2.80
713R1724	57 30360	36-Contact Plug	7.50	6.00	4.80
713R1728	57 40360	36-Contact Socket	4.83	3.86	3.09
713R1725	57 30500	50-Contact Plug	8.35	6.68	5.34
713R1729	57 40500	50-Contact Socket	6.30	5.04	4.03

CABLE-TO-CABLE CONNECTORS

Standard cable-to-cable connectors have cable entry at top of shell with strain relief clamp. Right-angle hoods with cable clamps and dust caps. Mate with 50-contact units above. Av. wt 2 oz

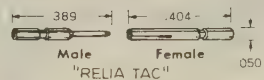
713R1708	57 10500 7	50 Contact Plug	6.98	5.58	4.46
713R1719	57 20500 7	50 Contact Socket	7.20	5.76	4.61

Rack, Panel, Strip, and Sub-Mini Connectors



Alec Electron

INDIVIDUAL "RELIA-TAC" CONTACTS



Rated 3 amps and types take 22, 24, 26 solid wire; 24, 26 stranded wire. Relia-Tac also takes 28 solid wire. Relia-Tac gold-over-nickel on copper alloy body; male, .389 x .050″; female, .404 x .050″. Guide pins will fit either type. Av. shpg. wt. per pkg. 1 oz. **Sold in pkgs. of 100.**

713-5853. 1-9.....Each :50 10-Up.....Each .40

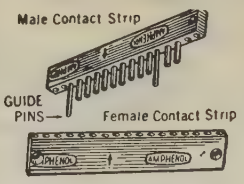
Stock No.	Mfr's. Type	Description	PRICE PER PKG. OF 100 1-9	10-24	25-49	50-Up
713R-5802	220-P02	Relia-Tac Male	10.50	8.40	6.72	5.25
713R-5805	220-S02	Relia-Tac Fem	18.92	17.43	16.09	14.16

Type 221-535 Universal Guide Pins.
713-5853. 1-9.....Each .50 10-Up.....Each .40

"WIRE-FORM" AND "RELIA-TAC" CONTACT TOOLS

Hand crimping tool, adjustable 4-indent miniature to **MIL-T-22520.** Requires contact locator bushing for specific contact used. Tool handle requires insertion bit or correct removal bit to accommodate desired contact. See Table below. Av. shpg. wt. 12 oz.

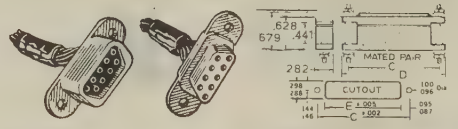
Stock No.	Mfr's Type	Description	For Contact	EACH 1-4	5-Up
713-8105	357-100	Hand Crimp T1	.....	171.21	136.97
713-8113	357-300-1	Contact Locator	220-S01/ S02/P01	33.35	26.68
713-8005	356-200	Tool Hdle. Only	.....	8.78	7.02
713-8017	356-400-11	Insertion Bit	ALL	14.85	11.88
713-8020	356-400-14	Removal Bit	220-S02	13.50	10.80



221 MICRO-MINIATURE STRIP CONNECTORS

Use full length as is, or cut to specific length. Two or more strips can be stacked or epoxied together for multi-row connector. When stacked, contact centers are .100″ for both connectors. Use guide pins at least every 3″ for mating alignment and keying. Guide pins replace both pin and socket contact. **Supplied less contacts and guide pins; listed at left.** Spacing .100″ except *.075″. Av. wt. 1 oz.

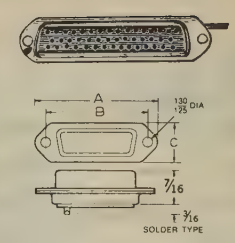
Stock No.	Mfr's. Type	Contacts	Description	EACH 1-9	10-49	50-99	100-Up
713-5860	221-1560	60	6″ Plug	1.45	1.16	.74	.70
713R5861	221-1660	60	6″ Recept.	1.20	.96	.63	.58
713-5862	221-2553	53*	4″ Plug	1.25	1.00	.73	.68
713-5864	221-2653	53*	4″ Recept.	1.20	.96	.77	.60



RACK AND PANEL SERIES 223 "TINY TIM"

For circuit modules, potted-in or surface mtg.; micro-miniature cable-to-cable use. **Meet MIL-C-8384B.** Contact spacing, .100″ ctrs. Screw mtg. **Less contacts, left.**

Stock No.	Mfr's. Type	Contacts	Description	Mtg. Ctrs. In.	EACH 1-9	10-49	50-99	100-Up
713-5950	223-1105	5	Plug	.593	1.12	.90	.72	.54
713-5955	223-1205	5	Recept.	.593	1.12	.90	.72	.54
713-5951	223-1109	9	Plug	.793	1.13	.91	.73	.55
713-5956	223-1209	9	Recept.	.793	1.13	.91	.73	.55
713-5952	223-1117	17	Plug	1.193	1.18	.94	.75	.59
713-5957	223-1217	17	Recept.	1.193	1.18	.94	.75	.59



MINIATURE CONNECTORS

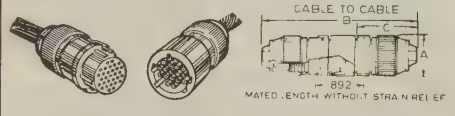
- **Feature Poke-Home Contacts for Fast Installation**
- **5-Amp Contacts Gold-over-Silver Plated**

Miniature rack and panel connectors with "Poke-Home" contacts for easy and fast installations. All contacts are gold-over-silver plated. Cadmium-plated steel shells. Current rating: 5 amperes from 0° to +230°F. All necessary tools and equipment for crimping and insertion of contacts below. *Solder receptacles. †Solder plugs. ‡Cable clamp accessories. Average shipping weight 2 ounces. Be sure to specify manufacturer's type number when ordering.

DIMENSIONS

Connector Size	A Max.	B	C Max.
9	1.239	.984	.515
15	1.567	1.312	.515
25	2.114	1.852	.515
37	2.754	2.500	.515
50	2.661	2.406	.626

Stock No.	Mfr's Type	Contacts	EACH 1-9	10-49	50-99	100-Up
713-0214	17-10090*	9	2.85	2.28	1.76	1.52
713-0218	17-10150*	15	4.05	3.24	2.49	2.15
713-0221	17-10250*	25	6.00	4.80	3.70	3.19
713-0224	17-10370*	37	8.43	6.74	5.19	4.48
713-0227	17-10500*	50	10.95	8.76	6.74	5.83
713-0230	17-20090†	9	2.08	1.66	1.28	1.10
713-0232	17-20150†	15	2.85	2.28	1.76	1.52
713-0234	17-20250†	25	3.90	3.12	2.60	2.07
713-0236	17-20370†	37	5.35	4.28	3.30	2.85
713-0238	17-20500†	50	6.95	5.56	4.28	3.70
713-0202	17-310-01‡	9	1.70	1.36	.90	.83
713-0204	17-311-01‡	15	1.75	1.40	.93	.85
713-0206	17-312-01‡	25	1.88	1.50	1.00	.92



222 "MIGHTY MITE" CIRCULAR

Reliable micro-miniature connectors for cable-to-cable or cable-to-chassis use. .085″ ctrs. Five keys, contact identification numbers molded into polycarbonate resin dielectric. 19-contact size, .621″ dia. x 2.618″; 31-contact, .746 x 2.948″; 61-contact, .966 x 3.530″. **Less contacts.** 1½ oz.

Stock No.	Mfr's. Type	Contacts	Description	EACH 1-9	10-49	50-99	100-Up
713-5901	222-11N19	19	Plug	2.00	1.60	1.28	1.02
713-5904	222-12N19	19	Receptacle	1.63	1.30	1.04	.83
713-5920	222-518	19	Cable Clamp	4.18	3.34	2.68	2.14

SERIES "D" SUBMINIATURE CONNECTORS

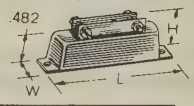
Pin/socket insert, gold-plated copper alloy contacts, cadmium-plated steel shells. Take #20 stranded wire, rated 5 amps. **Meets MIL-M-14F Type SDG.** Ins. res.: over 5000 megs, per **MIL-STD-202A, Method 302.** *Digits show No. of contacts; suffix "P," male conn.; "S," female. **Original "D":** 2-piece Nylon inserts. †**Mark I Golden "D":** mono-block with diallyl phthalate glass fiber insulation. Av. wt. 2 oz.

Connector	L+.015	W+.015	H+.010
9P/9S	1.213	.494	.422/.429
15P/15S	1.541	.494	.422/.429
25P/25S	2.088	.494	.426/.429
37P/37S	2.729	.494	.426/.429
50P/50S	2.635	.605	.426/.429

ORIGINAL "D"

Stock No.	*Mfr's Type	Flange Size In.	EACH 1-9	10-49	50-99	100-Up
750-0120	DE-9P	1 13/64 x 3 1/64	1.93	1.25	1.07	.99
750-0121	DE-9S	1 13/64 x 3 1/64	2.73	1.82	1.52	1.38
750R0020	DA-15P	1 17/32 x 3 1/64	2.69	1.79	1.50	1.36
750-0021	DA-15S	1 17/32 x 3 1/64	4.02	2.69	2.24	2.01
750R0050	DB-25P	2 5/64 x 3 1/64	3.98	2.72	2.24	1.99
750R0051	DB-25S	2 5/64 x 3 1/64	6.29	4.11	3.42	3.15
750-0082	DC-37P	2 33/32 x 3 1/64	5.40	3.58	2.97	2.70
750-0083	DC-37S	2 33/32 x 3 1/64	8.93	5.87	4.90	4.44
750-0100	DD-50P	2 5/64 x 3 1/64	6.81	4.70	3.90	3.53
750-0101	DD-50S	2 5/64 x 6 1/64	11.75	8.98	6.47	5.83
750-0126	DEM-9P†	1 13/64 x 3 1/64	3.72	2.98	1.97	1.79
750-0127	DEM-9S†	1 13/64 x 3 1/64	5.06	3.43	2.88	2.66

JUNCTION SHELLS



Mfr's Type	Lock Screws	Dim., Inches L	W	H
DA-19678-1	2	1.531	.500	.640
DB-19678-2	2	2.078	.500	.640
DC-19678-3	3	2.718	.500	.640
DD-19678-4	3	2.625	.609	.703

Low-carbon steel clamp with weather resistant cadmium plating. Exceeds 50-hour salt spray test; meet **MIL-STD-202A** specs. 3 oz.

Stock No.	Mfr's Type	EACH 1-9	10-49	50-99	100-Up
750-0046	DA-19678-1	1.73	1.38	1.10	.88
750R0078	DB-19678-2	2.03	1.62	1.30	1.04
750-0098	DC-19678-3	2.45	1.96	1.57	1.25
750-0114	DD-19678-4	2.63	2.10	1.68	1.34

SCREW LOCK ASSEMBLIES

For junction shells above. Same corrosion-resistant construction. *Female; †Male. Av. shpg. wt. 1 oz.

Stock No.	Mfr's Type	For Shell Size	EACH 1-9	10-49	50-99	100-Up
750R0015	*D20418-2	All	.70	.56	.44	.35
750R0016	†D20419-0	DA, DB, DC, DE	.48	.38	.30	.24

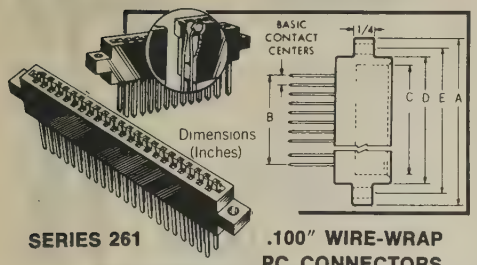
ALEC ELECTRON SAYS:

IT PAYS TO DO BUSINESS WITH ALLIED ELECTRONICS!!!

Electronics is fun, exciting, a good business to be in, and especially so when you've got a reliable source for ordering all the top-quality components you need at the most reasonable prices you've ever seen. Nobody likes a ripoff . . . it can ruin a hobby . . . it can ruin a profession or business venture . . . it can ruin anything you've had a good time doing. Allied hates a ripoff as bad as you do, so that's why we do our best to make electronics the thing it should be . . . FUN . . . EXCITING . . . RELAXING! And we do this with fast, dependable service, low cost, and a broadline of items stocked in-depth. You could almost call us the *SUPERMARKET of the ELECTRONICS INDUSTRY* . . . and we are! *Plus*, we go a few steps further to make satisfaction a routine thing with all our customers. Don't take a chance next time. Shop Allied and keep the FUN in electronics!

Printed Circuit Card-Edge Connectors

SERIES 261 AND 225 PC CONNECTORS WITH .100″ CONTACT CENTERS



SERIES 261 .100″ WIRE-WRAP PC CONNECTORS

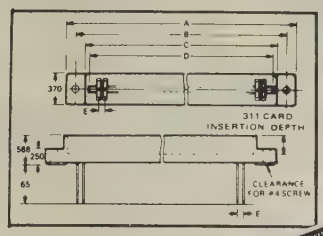
Dual readout of double-sided PC boards. Pre-loaded cantilver contacts are assembled into dielectric with precise spacing for automatic solderless wrap terminations. Tail is sufficient for three wire wraps plus bussing. Contacts confined in dielectric to determined pre-load force for fixed, definite separation; eliminating possibility of shorts. Gold-plated phosphor bronze contacts rated 5.0 amps. Voltage rating: 300 V rms at sea level. Min. voltage breakdown: 1800 V rms. Contact res.: 6.0 milliohms max. Key replaces one pr. of contacts. .025″ square tail, 50001-type contact. 3 oz.

.100″ CENTER

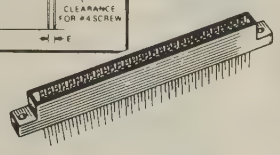
Stock No.	Mfr's Type	Contacts	EACH 1-9	10-49	50-Up
713-7206	261-10015-2	15	6.15	4.92	3.93
713-7208	261-10022-2	22	8.25	6.60	5.28
713-7210	261-10036-2	36	11.95	9.56	7.65

.100″ CENTER DIMENSIONS

Contacts	A	B	C	D	E
15	2.474	1.400	1.720	1.874	2.156
22	3.174	2.100	2.420	2.574	2.856
36	4.574	3.500	3.820	3.974	4.256



SERIES 225 PC CONNECTORS WITH .100″ CONTACT CENTERS



For Automatic or Hand Wire Wrapping

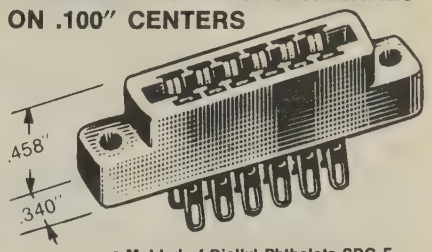
Bifurcated bellows contacts on .100x.200 grid spacings provide smooth positive, two-point mating action no matter how irregular the board surface. Contacts are confined in dielectric to determined pre-load force for fixed definite separation, eliminating possibility of shorts. Provide dual readout of double-sided PC boards. Electrical grade phenolic. Phosphor bronze contacts plated gold over copper. For .054 to .071″ boards. Current rating: 5 amps. Voltage: 600 VAC at sea level. Terminals .65″ long. Av. wt. 3 oz.

.100″ CONTACT CENTERS

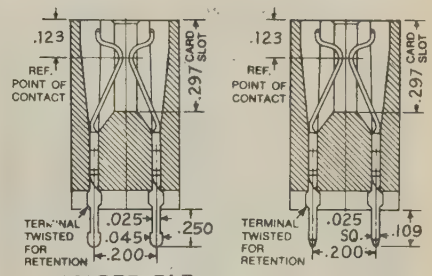
Contacts	A	B	C	D	E
100	5.955	5.655	5.355	5.220	.100

Stock No.	Type 225-	Contacts	Centers	EACH 1-9	10-49	50-Up
713-6160	805-50	100	100	13.88	11.10	8.80

CONNECTORS WITH TERMINALS ON .100″ CENTERS



- Molded of Diallyl Phthalate SDG-F



Two terminal styles—solder tab or wire wrap. Available in sizes from 36/72 to 43/86 contacts. Insulators, with or without mounting lugs, molded of diallyl phthalate Type SDG-F. Barriers between contacts accept 50PK3 polarization keys. Cantilever contact design handles 1/16″ thick single or double sided boards. Contacts preloaded against insulator stop to provide gap uniformity and assure rapid build up of force to the PC board. Construction combines min. insertion force with max. contact pressure. Current Rating: 3 amps. Rated Voltage: 600 VDC. Insulation Res: 5000 megohms min. Contact Res: 16 milliohms max. Contacts: Phosphor bronze. Contact Plating: .0003 min. gold over .00005 min. nickel on contacting area, .00001 gold on remainder of contact. Av. shpg. wt: 2 oz.

251 SERIES SOLDER TAB

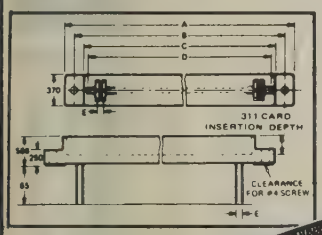
Stock No.	Mfr's Type	No. of Cont.	EACH 1-9	10-24	25-49	50-Up
750-1197	5086C10	43/86	7.87	6.75	5.39	4.49

253 SERIES WIRE WRAP

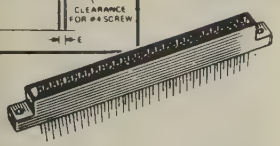
750-1191	5072C30	36/72	7.20	6.13	4.91	4.11

SERIES 261 AND 225 PC CONNECTORS WITH .125″ CONTACT CENTERS

- Dual Readout of Double-Sided PC Boards
- Insulated Contacts Eliminate Possibility of Shorts
- Highest Quality Materials and Workmanship



SERIES 225 PC CONNECTORS WITH .125″ CONTACT CENTERS



For Automatic or Hand Wire Wrapping

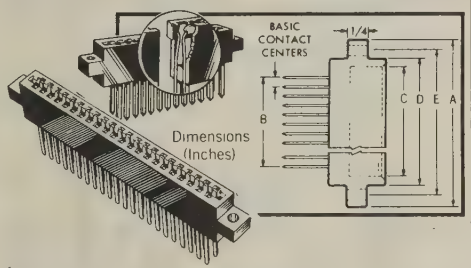
Bifurcated bellows contacts on .125x.250 grid spacings provide smooth positive, two-point mating action no matter how irregular the board surface. Contacts are confined in dielectric to determined pre-load force for fixed definite separation, eliminating possibility of shorts. Provide dual readout of double-sided PC boards. Electrical grade phenolic. Phosphor bronze contacts plated gold over copper. For .054 to .071″ boards. Current rating: 5 amps. Voltage: 600 VAC at sea level. Terms. .65″ l. 3 oz.

.125″ CONTACT CENTERS

Contacts	A	B	C	D	E
60	4.680	4.380	4.080	3.945	.125
100	7.180	6.880	6.580	6.445	.125

Stock No.	Type 225-	Contacts	Centers	EACH 1-9	10-49	50-99	100-Up
713-6151	804-30	60	.125	8.88	7.10	5.68	4.17
713-6153	804-50	100	.125	13.88	11.10	8.88	6.53

SERIES 261 .125″ WIRE-WRAP PC CONNECTORS



Dual readout of double-sided PC boards. Same specs as Series 261 above, left. Wt. 3 oz.

.125″ CENTER DIMENSIONS

Contacts	A	B	C	D	E
18	3.199	2.125	2.445	2.599	2.881
28	4.449	3.375	3.695	3.849	4.131
36	5.449	4.375	4.695	4.849	5.131

.125″ CENTER

Stock No.	Mfr's Type	Contacts	EACH 1-9	10-49	50-99	100-Up
713-7413	261-12518-2	18	7.03	5.62	4.49	3.30
713-7415	261-12528-2	28	10.30	8.24	6.59	4.85
713-7416	261-12536-2	36	11.95	9.56	7.65	5.62

GUIDE TO SELECTING PC Card Edge Connectors

Allied stocks a complete line of printed circuit connectors covering spacing from .075″ to .156″ centers in a variety of contact styles. Come in single and dual readout in a great range of contact positions. The chart below will help you locate the type needed faster and with more efficiency than ever before. Insulator column in table uses abbreviation P for Phenolic and DP for Diallyl Phthalate.

Centers	Series	Mfgr.	Insulator	Contact Types: Eyelet	Dip Solder	PC Tab	Wire Wrap
.156	143	Amphenol	DP	X		X	
.156	225	Amphenol	P	X	X	X	
.156	261	Amphenol	P				X
.156	50	Cinch	DP	X	X		
.156	600	Vector	DP	X	X		
.125	225	Amphenol	P				X
.125	261	Amphenol	P				X
.100	225	Amphenol	P				X
.100	261	Amphenol	P				X
.100	50	Cinch	DP				X
.075	64	Amphenol	DP			X	

50 GP-1 CARD POST GUIDE

For any 251 or 253 series connector with clearance mounting holes. Polypropylene card guide. Nylon polarizing key. Phosphor bronze contacts. **SDG-F per MIL-M-14.** 1 oz.

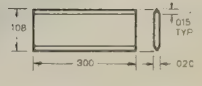
750R1099. 1-9 .41 10-24 .33 25-Up .26

SERIES 225 POLARIZING KEY

Type 225-594. Between-contact key for .125″ center wire-wrapables and .156″ center solder types.

713-6101. Type 225-594 Key..... Each .07

POLARIZING KEYS FOR .156″ CENTER PC CONNECTORS AND PLUGS

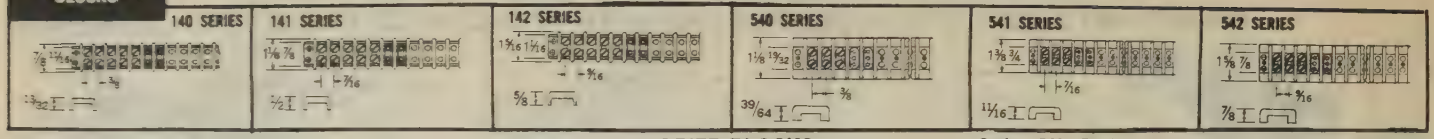


Phenolic dielectric polarizing keys for Series 225 and 133 .156″ center PC connectors and plugs on page **80**. Type 50PK-1 takes up one contact position; Type 50PK-2 does not reduce contact position.

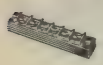
Stock No.	Type No.	EACH 1-9	10-24	25-49	50-Up
750-1102	50PK-1	.10	.08	.06	.06
750R1103	50PK-2	.09	.07	.06	.05

Larger Quantity Price Breaks Available on Request

Barrier Block and Strip Terminals



BARRIER-TYPE TERMINALS



Barriers interposed between terminal positions for more insulation. Follow edge of strips, terminate at base. Insure positive contact. Series 140, 5-40x3/16" binder headscrews; 141, 6-32x1/4"; 142, 8-32x5/16".

NOTE: First number in Mfr's Type is number of terminals.

Series 140. Leakage path between terminals 3/8". Base 7/8" wide x 5/8" high. Use with Series 1600 fanning strips. Av. shpg. wt. 14 oz.

15 AMPS, 1100/1200 VOLTS RMS*

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
750R1316	2-140	.375	.30	.24	.21
750R1365	3-140	.425	.34	.272	.241
750R1410	4-140	.475	.38	.304	.27
750-1455	5-140	.558	.446	.357	.317
750R1500	6-140	.75	.60	.48	.426
750-1545	7-140	.80	.64	.512	.454
750R1590	8-140	.875	.70	.56	.497
750-1635	9-140	1.03	.824	.659	.582
750R1675	10-140	1.18	.944	.76	.668
750-1720	11-140	1.23	.984	.79	.696
750R1756	12-140	1.30	1.04	.83	.74
750-1835	14-140	1.48	1.18	.94	.84
750-1875	15-140	1.58	1.26	1.00	.89
750-1908	16-140	1.68	1.34	1.07	.95
750-1976	18-140	1.95	1.56	1.25	1.11
750R2024	20-140	2.15	1.72	1.38	1.22

Series 141. Leakage path between terminals 7/16". Base 1 1/4" wide x 1/2" high. Use with Series 161 fanning strips. Av. shpg. wt. 14 oz.

20 AMPS, 1100/1600 VOLT RMS*

750-1319	2-141	.40	.32	.256	.227
750R1368	3-141	.50	.40	.32	.284
750R1413	4-141	.70	.56	.45	.398
750-1458	5-141	.80	.64	.512	.454
750R1503	6-141	.875	.70	.56	.497
750-1548	7-141	1.10	.88	.70	.625
750R1593	8-141	1.20	.96	.768	.68
750-1638	9-141	1.30	1.04	.83	.74
750R1678	10-141	1.40	1.12	.90	.80
750R1759	12-141	1.63	1.30	1.04	.92
750-1838	14-141	1.95	1.56	1.25	1.11
750-1878	15-141	2.08	1.66	1.33	1.18
750R1911	16-141	2.20	1.76	1.41	1.25
750-1979	18-141	2.43	1.94	1.55	1.38

Series 142. Leakage path between terminals 5/16". Base 1 5/16" wide x 5/8" high. Use with Series 162 fanning strips. Av. shpg. wt. 14 oz.

30 AMPS, 1600/2500 VOLTS RMS*

750-1322	2-142	.45	.36	.288	.256
750-1371	3-142	.58	.464	.37	.327
750-1416	4-142	.775	.62	.496	.44
750-1461	5-142	.925	.74	.59	.525
750R1506	6-142	1.13	.904	.723	.639
750-1596	8-142	1.40	1.12	.90	.80
750-1641	9-142	1.53	1.22	.98	.87
750-1681	10-142	1.68	1.34	1.07	.95
750-1762	12-142	2.08	1.66	1.33	1.18
750-1914	16-142	2.68	2.14	1.71	1.52
750-1951	17-142	2.95	2.28	1.82	1.62

MINIATURE BARRIER STRIPS

Series 171 single 2-56x3/16" binding head screw terminals on 1/4" ctrs.; 5/16x13/32". **Series 172** double 2-56x3/16" screw terminals on 1/4" ctrs.; 5/8x3/16". **Series 173** single 4-40x5/16" screw terminals on 3/8" ctrs.; 3/8x1/2" closed back. **1000 Volts rms, current depends on size wire used.** 5 oz.

750-1534	6-172	1.43	1.14	.91	.81
750-1706	10-172	2.20	1.76	1.41	1.25
750-1784	12-172	2.53	2.02	1.62	1.43
750-1863	14-172	2.88	2.30	1.84	1.83

BARRIER BLOCKS

Barriers between each terminal provide increased insulation; follow edge of strips and terminate at base. Molded bakelite base. All have brass solder terminals with hot-tin dipped finish. Sizes: **Series 140-Y,** 7/8" wide x 5/8" high; **141-Y,** 1 1/8" wide x 1/2" high; **142-Y,** 1 5/16" wide x 5/8" high.

Series 140-Y. Leakage path between terminals, 3/8". Designed for use with Series 1600 fanning strips. Av. wt. 5 oz. Ratings: 15 amps, 1100/1200 volts RMS*.

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
750-1302	2-140-Y	.45	.36	.288	.256
750-1367	3-140-Y	.50	.40	.32	.284
750-1412	4-140-Y	.725	.58	.464	.412
750-1457	5-140-Y	.85	.68	.544	.483
750-1502	6-140-Y	1.00	.80	.64	.57
750-1547	7-140-Y	1.18	.944	.76	.667
750-1592	8-140-Y	1.30	1.04	.83	.74
750-1677	10-140-Y	1.55	1.24	.99	.88
750-1758	12-140-Y	1.90	1.52	1.22	1.08
750-1910	16-140-Y	2.48	1.98	1.58	1.41
750-2026	20-140-Y	3.03	2.42	1.94	1.72

*Higher Rating Measured With Marker Strip.

Series 141-Y. Leakage path, 7/16". For Series 161 fanning strips. Av. wt. 5 oz. 20 amps, 1100/1600 volts rms.*

750-1370	3-141-Y	.75	.60	.48	.426
750-1415	4-141-Y	.875	.70	.56	.497
750-1505	6-141-Y	1.28	1.02	.82	.724
750-1595	8-141-Y	1.63	1.30	1.04	.92
750-1640	9-141-Y	1.88	1.50	1.20	1.07
750-1680	10-141-Y	2.03	1.62	1.30	1.15
750-1761	12-141-Y	2.38	1.90	1.52	1.35
750-2029	20-141-Y	4.00	3.20	2.56	2.27

Series 142-Y. Leakage path, 5/16". For Series 162 fanning strips. Rated 30 amps, 1600/2500 volts rms.* Wt. 5 oz.

750-1324	2-142-Y	.70	.56	.448	.398
750-1508	6-142-Y	1.55	1.24	.99	.88
750-1683	10-142-Y	2.53	2.02	1.62	1.43

*Higher Rating Measured With Marker Strip.

500 SERIES BARRIER BLOCKS

Barriers between each terminal provide increased insulation. High, wide barrier permits high voltage ratings. Material between the terminals at the base strengthens the entire strip. Molded bakelite base, brass solder terminals with hot tin-dipped finish.

Series 540. Double 5-40x3/16" binder, head screw terminals. Creepage distance 1/2". 1 1/8" wide by 39/64" high. Term. 3/8" C.-C., .160" d. holes. 15 A, 2300 V. 14 oz.

750-1356	2-540	.825	.66	.528	.469
750-1450	4-540	1.25	1.00	.80	.71
750-1540	6-540	1.63	1.30	1.04	.92
750-1584	7-540	1.85	1.48	1.18	1.05
750-1629	8-540	2.03	1.62	1.30	1.15
750-1712	10-540	2.43	1.94	1.55	1.38
750-1788	12-540	2.88	2.30	1.84	1.63
750-1936	16-540	3.60	2.88	2.30	2.04
750-2046	20-540	4.40	3.52	2.82	2.50
750-2075	24-540	5.23	4.18	3.34	2.97
750-2094	30-540	6.43	5.14	4.11	3.65

Series 541. Double 6-32x1/4" binder head screw term. Creepage distance 5/8". 1 3/8" wide by 1 1/16" high. Term. 7/16" C.-C., .175-.180" d. holes. 20 A, 2800 V, RMS.

750-1406	3-541	1.25	1.00	.80	.71
750-1451	4-541	1.40	1.12	.90	.795
750-1541	6-541	1.85	1.48	1.18	1.05
750-1630	8-541	2.30	1.84	1.47	1.31
750-1713	10-541	2.60	2.08	1.66	1.48
750-1789	12-541	3.10	2.48	1.98	1.76
750-1937	16-541	3.88	3.10	2.48	2.20
750-2047	20-541	4.68	3.74	2.99	2.66
750-2095	30-541	6.78	5.42	4.34	3.85

Series 542. Double 8-32x5/16" binder head screw term. Creepage distance 3/4". 1 5/8" wide x 7/8" high. 30 A, 4000 V RMS. 14 oz.

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
750-1542	6-542	2.15	1.72	1.38	1.22
750-1714	10-542	3.23	2.58	2.06	1.83
750-1790	12-542	3.73	2.98	2.38	2.12
750-1938	16-542	4.83	3.86	3.09	2.74
750-2048	20-542	5.88	4.70	3.76	3.34

BARRIER-TYPE TERMINALS

Barrier terminals offer high voltage ratings and protection against shorts due to frayed wires. Dimensions for each Series are shown in drawings

BAKELITE BARRIER BLOCKS

Series 150. Nickel-plated brass screws. Fit 50-A solder lugs—#6 stranded wire. 10-32x5/16" term. on 1 1/16" ctrs. 3/4x1 13/16". 50 A, 1700/2600 V RMS.* Wt. 6 oz.

750-1309	2-150	1.18	.94	.76	.67
750-1374	3-150	1.53	1.22	.98	.87
750-1419	4-150	2.00	1.60	1.28	1.14
750-1464	5-150	2.48	1.98	1.58	1.41
750-1509	6-150	2.88	2.30	1.84	1.63
750-1599	8-150	3.78	3.02	2.42	2.14
750-1684	10-150	5.08	4.06	3.25	2.89

*Higher Rating Measured With Marker Strip.

FANNING STRIPS

Laminated 3/32" bakelite strips; hole in either end for fastening cable with clamp or twine. Left hand mtg. .032" cadmium-plated brass term. Prefix in Mfr's Type No. indicates no. of terminals. 2 oz.

160L. Fit Series 140 barrier term. on 3/8" ctrs. 1/2" wide.

750-1519	6-160L	.925	.74	.59	.525
750-1563	7-160L	1.03	.824	.659	.582
750-1608	8-160L	1.28	1.02	.816	.724
750-1692	10-160L	1.45	1.16	.93	.82
750-1771	12-160L	1.80	1.44	1.15	1.02

161L. Fit Series 141 barrier term. on 7/16" ctrs. 5/8" wide.

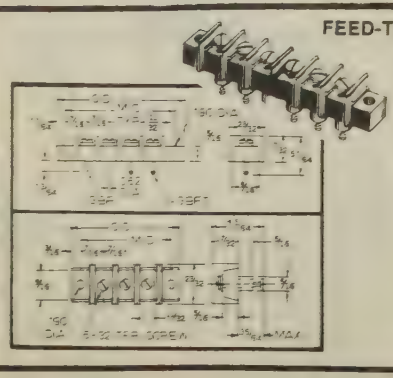
750-1612	8-161L	1.23	.984	.787	.696
750-1696	10-161L	1.50	1.20	.96	.85
750-1775	12-161L	1.88	1.50	1.20	1.07

MARKER STRIPS

Used for labeling terminal positions on barrier strips. Also act as insulators. 1/32" black fiber. Mounting holes match those in corresponding barrier strips. First figure in Mfr's Type no. indicates no. of contacts; last 3 figures indicates barrier series. Strips are numbered sequentially from 1 with white no. 1 oz.

750-0260	MS 3-140	.183	.146	.117	.104
750-0270	MS 4-140	.183	.146	.117	.104
750-0280	MS 5-140	.183	.146	.117	.104
750-0290	MS 6-140	.183	.146	.117	.104
750-0309	MS 8-140	.213	.17	.136	.12
750-0318	MS 9-140	.213	.17	.136	.12
750-0327	MS10-140	.243	.194	.155	.138
750R0340	MS12-140	.243	.194	.155	.138
750-0351	MS14-140	.273	.218	.174	.16
750-0363	MS16-140	.303	.242	.194	.172
750-0375	MS18-140	.303	.242	.194	.172
750-0384	MS20-140	.335	.268	.214	.19
750-0252	MS 2-141	.183	.146	.117	.104
750-0271	MS 4-141	.183	.146	.117	.104
750-0282	MS 5-141	.183	.146	.117	.104
750-0292	MS 6-141	.213	.17	.136	.12
750-0311	MS 8-141	.243	.194	.155	.138
750R0328	MS10-141	.243	.194	.155	.138
750-0342	MS12-141	.273	.218	.174	.155
750-0365	MS16-141	.335	.268	.214	.19
750R0386	MS20-141	.395	.316	.253	.224
750-0294	MS 6-142	.213	.17	.136	.12
750-0344	MS12-142	.335	.268	.214	.19

FEED-THRU TERMINAL BLOCKS



Rated 20 amps 300 volts. External terminals 6-32 screws 2 thru 20 terminals. Black phenolic non-plated terminals.

Types GBP, GBFT. Flat base feed-thru block with turret-type solder terminal (GBFT) or .062" dia. PC pins (GBP) for internal connection. Takes up to #12 AWG wire.

Type GFT. Insulated feed-thru terminal block. Insulation of each terminal for full ¼" terminal-to-ground clearance through ⅛" chassis. Internal solder connection.

TYPE GFT FULLY INSULATED TERMINALS

Stock No.	Mfr's Type	Lgth. In.	EACH 1-24	25-99	100-499	500-Up
764-0502	GFT-2	1 13/32	.95	.75	.62	.55
764R0504	GFT 4	2 7/32	1.33	1.06	.89	.75
764R0506	GFT-6	3 13/32	1.98	1.58	1.32	1.12
764-0508	GFT 8	4 3/4	2.60	2.08	1.74	1.49
764-0510	GFT-10	5 3/4	3.25	2.60	2.17	1.85
764-0512	GFT-12	6	3.88	3.10	2.59	2.20
764-0514	GFT 14	6 3/4	4.53	3.62	3.02	2.57
764-0516	GFT 16	7 3/4	5.15	4.12	3.44	2.93
764-0520	GFT 20	9 1/2	6.45	5.16	4.13	3.66

TYPE GBP PRINTED CIRCUIT PINS

764-0404	GBP-4	2 17/32	1.15	.92	.77	.66
764-0408	GBP-8	4 1/4	2.20	1.76	1.47	1.25
764-0410	GBP 10	5 1/4	2.73	2.18	1.82	1.55
764-0416	GBP-16	7 3/4	4.30	3.44	2.87	2.44

TYPE GBFT FEED-THRU TURRET TERMINALS

764-0606	GBFT-6	3 13/32	1.67	1.34	1.12	.95
764-0608	GBFT-8	4 1/4	2.20	1.76	1.47	1.23
764-0612	GBFT-12	6	3.25	2.60	2.17	1.85

ADAPTER SOLDER TERMINALS

Types ¾W and W for topside; Y for underside. 141-J- 95B jumpers for con. between barrier block term. Tinned brass. 1 oz.

Stock No.	Mfr's Type	For Series	EACH 1-9	10-24	25-49	50-Up
750-0809	¾ W-140	140	.17	.16	.14	.13
750-0806	Y-140	140	.17	.16	.14	.13
750-0807	Y-141	141	.17	.16	.14	.13
750-0808	Y-142	142	.208	.166	.133	.118
750R1249	141-J	140, 141	.153	.122	.098	.087
750R1240	95B	142	.348	.278	.222	.197

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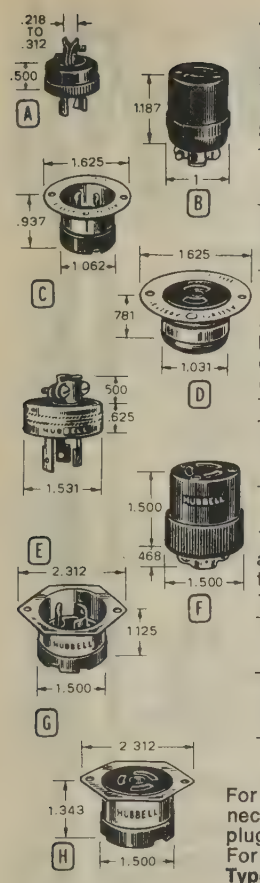
Assorted Connectors



MIDGET 2-WIRE NONPOLARIZED TYPES

Type 7428 Male cap and Type 7427 female connector are brown bakelite with metal cable clamps for 5/16 to 1/2" O.D. cords. Type 7466 male base, Type 7468 female base are bakelite with metal housings. Rated 10 amps at 250 V; 15 amps, 125 V. Ship. wt. 2 oz.

Stock No.	Mfr's Type	Fig.	Description	EACH 1-24	25-49	50-Up
813R7428	7428	A	Male Cap	1.20	.96	.69
813R7427	7427	B	Female Conn.	2.21	1.77	1.26
813-7466	7466	C	Male Base	2.61	2.09	1.49
813-7468	7468	D	Female Base	3.18	2.54	1.81

MIDGET 3-WIRE POLARIZED TYPES

Similar to above but for 3-conductor cables. Insulation is black bakelite.Clamps will accommodate cords from 3/32-27/64" O.D. Polarization prevents incorrect connection. Rated 10 amps at 250 V. or 15 amps at 115 V. 3 oz.

813-7485	7485	A	Male Cap	2.86	2.29	1.63
813R7484	7484	B	Female Conn.	4.12	3.80	2.35
813R7486	7486	C	Male Base	3.65	2.92	2.08
813-7487	7487	D	Female Base	4.48	3.57	2.54

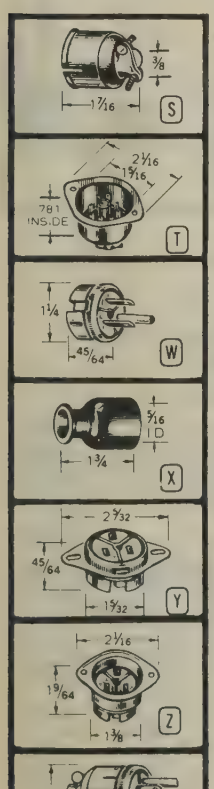
STANDARD 3-WIRE POLARIZED TYPES

Type 7572, Type 7556, Type 7557 have rust-resistant metal housings. Type 7555 is bakelite. Clamps take cords 1/64" to 3/4" O.D. All 10 amps at 250 V; 15 amps, 125 V. Armored. Wt. 4 oz.

Stock No.	Mfr's Type	Fig.	Description	EACH 1-24	25-49	50-Up
813-7572	7582	E	Male Cap*	3.39	2.71	1.93
813R7555	7555	F	Female Conn.	5.38	4.30	3.07
813R7556	7556	G	Male Base	4.46	3.57	2.54
813-7557	7557	H	Female Base	4.94	3.95	2.82

AC CONNECTOR ASSEMBLIES

For Types 61, 160, 78S, 86CP, other grooved connectors. Drawn steel. Lower bottom of sockets, plugs, connectors, 1 3/16" below mounting surface. For cable-to-cable or cable-to-panel applications. **Type 3-24** cable clamp to 3/8" thick cable; 1 7/16" long. **Type 3-858** thermoplastic, end outlet, strain relief, 5/16" I.D. **Type 61-61** recessed mounting shell lowers S sockets, CP plugs and outlet type connectors 1 3/16" below surface; fits 1 7/16" hole; 5/32" mnt. holes on 1 3/4" ctrs. Wt. 3 oz.



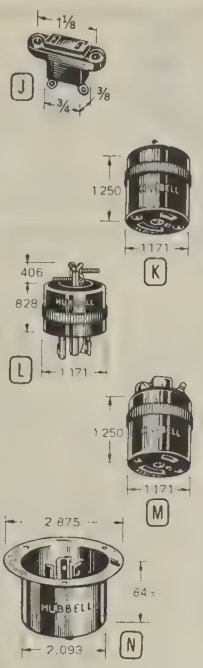
Stock No.	Mfr's Type	Fig.	Description	EACH 1-24	25-49	50-99	100-Up
713-0024	3-24	S	Black plug cap	.46	.37	.29	.26
713-0858	3-858	X	Plastic plug cap	.55	.44	.35	.29
713-2123	61-61	T	Recessing shell	.28	.22	.18	.15

PLUGS AND SOCKETS

61 series is 2 pole; 160 series is 2 pole with grounding lug. Black Nylon rated 15 A at 120 V AC/DC. U.L. Recog. except Fig. W types which mount in 1 11/64" keyed hole with retaining ring supplied. Fig. Y types have molded-in mtg. plates except, § retaining-ring-mounted plate; require 1 3/32" mtg. holes and have 5/32" slotted holes on 1 1/2" to 1 7/8" ctrs., except 61-MIP-61F, 1 3/16" mtg. hole, 5/32" holes on 1 1/2" ctrs. Fig. Z types mount in 1 7/16" hole, have two 5/32" holes on 1 3/4" cts. †1 7/16" I. D. grommet instead of 3/8" clamp. *Not illus. Wt., 3 oz.

Stock No.	Mfr's Type	Fig.	Desc.	EACH 1-24	25-49	50-99	100-Up
713-2112	61-M	W	male	.86	.69	.55	.43
713R2101	61-F	*	female	.78	.62	.50	.39
713-2102	61-F1	§	female	.93	.74	.60	.46
713R2117	61-MIP-61F	Y	female	.85	.68	.54	.42
713-2115	61-M10	Z	male	1.22	.98	.78	.61
713-2110	61-F10	Z	female	1.16	.93	.74	.58
713-5210	160-10N	*	female	1.79	1.43	1.15	.90
713-5211	160-11N	W	male	2.14	1.71	1.37	1.07
713R5202	160-2N	Y	female	1.92	1.54	1.23	.96
713-5204	160-3N	Y	male	2.65	2.12	1.70	1.32
713R5203	160-4N	Z	female	2.24	1.79	1.43	1.12
713R5205	160-5N	Z	male	2.94	2.35	1.88	1.47
713-5208	160-8N	†AA	female	2.15	1.72	1.38	1.07
713-5209	160-9N	AA	male	2.67	2.14	1.71	1.33

CHASSIS-MOUNTING AC SOCKET



Compact AC socket has lug terminals. Rated 10 amps at 250 volts or 15 amps at 125 volts. Mnt. hole. 25/64 x 25/32". Overall, 1 1/2 x 1 1/2". 1 oz.

Stock No.	Mfr's Type	Fig.	EACH 1-24	25-49	50-99	100-Up
750R0829	2R2	J	.38	.30	.24	.21

MIDGET 3-WIRE GROUNDING TYPES

Positive lock connectors designed for 15 amp, 125 V grounding applications. Hollow brass grounding sleeve in cap mates with brass split pin. All 1 3/32" dia. *With cord grips. 3 oz.

Stock No.	Mfr's Type	Fig.	Description	EACH 1-9	10-49	50-Up
813-7591	7591	K	Female Conn.	4.79	3.83	2.74
813R7593	7593	M	Female Conn.*	5.04	4.03	2.88
813R7594	7594	L	Male Cap*	3.76	3.00	2.15

HEAVY-DUTY 3-WIRE POLARIZED TYPES

Type 7313 has bakelite housing; Types 7327, 7328 have rust-resistant metal. Clamps take cords 1/16-3/4" O.D. Rated 20 amps at 250 V or 10 amps at 575 V. Av. shpg. wt. 4 oz.

813-7313	7313	F	Female Conn.	7.50	6.00	4.28
813-7327	7327	N	Male Base	5.78	4.62	3.70

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TYPE 179 RUBBER HANDLE PLUG. Approved for 2-wire 15 amp use. Use with Type 178 for extension cords. 5/16 d. x 1 9/16" l. Wt. 4 oz.
785R-0179. 1-24 Ea. **.29** 25-99 Ea. **.24** 100-Up ..... Ea. **.19**

TYPE 84B FLAT RUBBER SIDE/OUTLET PLUG. Prongs molded into vinyl; Insulated binding screws. 15 amps at 125 volts. 1 1/4 l., 1/2 w., 1" h. Shpg. wt. 2 oz.
785-0084 1-24 Ea. **.36** 25-99 Ea. **.34** 100-Up ..... Ea. **.27**

TYPE 919B BAKELITE PLUG. With fingergrip. Cap size, 5/8 x 1 7/16 x 1 3/16" Screw terminals. 15 amps. Brown. 4 oz.
785-0919. 1-24 Ea. **.33** 25-99 Ea. **.26** 100-Up ..... Ea. **.21**

TYPE 400B VINYL CUBE TAP. Brass spring prongs. 3-way outlet. Rated 15 amps at 125 volts. 1 1/2 h. x 1/2" w. Shpg. wt. 8 oz.
785-0400. 1-24 Ea. **.46** 25-99 Ea. **.37** 100-Up ..... Ea. **.30**

TYPE C900B JIFFY PUSH-PULL PLUG. Push POSJ cable through hole in cap. Pull for positive connections. 1 1/4 l. x 1/4" w.
785-0009. 1-24 Ea. **.35** 25-99 Ea. **.32** 100-Up ..... Ea. **.29**

TYPE 183B FLAT RUBBER PLUG. Molded cap. Easily disassembled. Screw terminal wiring. 15 amps at 125 V. 1 1/4 l. x 1 1/4" w. Wt. 3 oz.
785R-0183. 1-24 Ea. **.37** 25-99 Ea. **.30** 100-Up ..... Ea. **.24**

TYPE 203 PARALLEL GROUND PLUG. Rubber handle. "U" ground. 3-wire. Two fit standard duplex receptacle. 1/2 d. x 1 5/8" l. 2 oz.
785R-0203. 1-9 Ea. **1.06** 10-24 Ea. **.85** 25-Up ..... Ea. **.77**

TYPE 178 RUBBER LINE CORD CONNECTOR. Rated 15 amps at 125 volts. Cable clamp. 1 1/4 d. x 2 1/4 h. x .450" hole. Wt. 3 oz.
785-0178. 1-24 Ea. **.80** 25-99 Ea. **.64** 100-Up ..... Ea. **.57**

TYPE 2RP RECESSED PLUG. Designed for input voltage connector for TV sets. Cad. plated tin steel housing 1 5/8 x 5/8 x 5/16". 1 1/4 mtg. ctrs. Holes .140/.145. 7 amps at 125 volts. Shpg. wt. 1 oz.
750-0830. 1-24 ..... Each **.28** 25-49 .. Each **.22** 50-Up .. Each **.18**

TYPE 222 PARALLEL GROUND RUBBER CONNECTOR. 3 bronze contacts. 15 amps @ 125 V. Cable clamp. 2 23/32 h. x .60" cord hole. Shpg. wt. 3 oz.
785R-0222. 1-9 ..... Ea. **2.21** 10-24 ... Ea. **1.77** 25-Up ... Ea. **1.59**

TYPE 832 BAKELITE PARALLEL GROUND ADAPTER. Adapts 3-prong plugs for standard 2-prong AC outlets. Double-wipe contacts. 15 amps @ 125 V. 1 13/32 d. x 1 13/32" h. Shpg. wt. 3 oz.
785-0832. 1-9 Ea. **.74** 10-24 Ea. **.59** 25-Up ..... Ea. **.53**

TYPE 86B FLAT RUBBER CORD CONNECTOR. Matches 84B, 919B. Double-wipe contacts. Insulated screws. 1 1/8 l. x 5/16 w. x 2" h. 3 oz.
785R-0066. 1-9 Ea. **.83** 10-24 Ea. **.67** 25-Up ..... Ea. **.60**

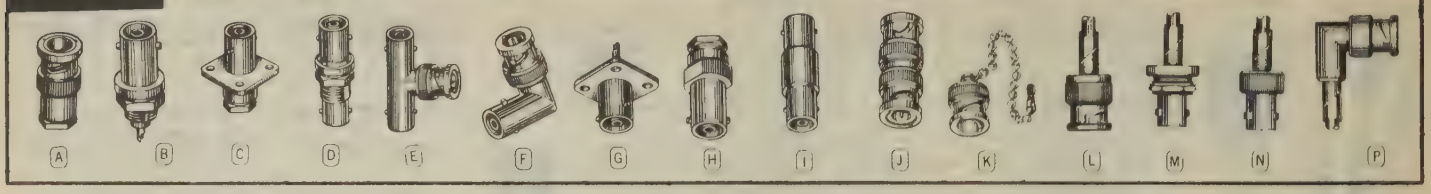
TYPE 202 LARGE RUBBER HANDLE PLUG. Cord clamps. 1 1/2 d. x 1 5/8" h. 3 oz.
785-0202. 1-9 Ea. **.49** 10-24 Ea. **.40** 25-Up ..... Ea. **.36**

TYPE 419 VINYL PARALLEL GROUND ADAPTER. Same function as Type 832. 15 amps @ 125 V. 1 1/16 l. x 1 w. x 1 3/16" h. 3 oz.
785R-0419. 1-9 Ea.. **.46** 10-25 Ea. **.37** 25-Up ..... Ea. **.33**

SOLDERLESS WIRE CONNECTOR. Strip wire end; push into connector, screw cap down—wire firmly interconnected. U.L. Listed. Sold per pkg. of 100 only.

Stock No.	Mfr. Type	Wire Size	PKG.
785-0033	33	16-18	2.13
785-0044	44	14-18	2.45
785-0066	66	12-18	3.45

Coaxial, Chassis & Cable-Mount Connectors



BNC BAYONET COUPLED, TARNISH-RESISTANT (†) CONNECTORS

Rated 500 volts peak; 1500 V rms dielectric. Freq. range: 0-10 GHz.
†Non-tarnish Astro-Plate finish.

Stock No.	Military Type	Mfr's Type	Descrip-tion	Fig.	For RG/U Cables	In. Lg.	EACH 1-24	25-99	100-Up
713R1003	UG-88/U†	31-002	Plug	A	55, 58	31/32	1.28	1.02	.64
713R1025	UG-88B/U†	31-018	Plug	A	55, 58	31/32	1.53	1.22	.77
713R1041	UG-88C/U†	31-202	Plug	A	55, 58 142, 143	1 1/16	1.43	1.14	.76
713R1007	UG-89/U†	31-005	Jack	H	55, 58	1 1/8	2.23	1.78	1.18
713-1046	UG-89B/U	31-205	Jack	H	55, 58	1 9/64	2.25	1.80	1.20
713-1031	CW-123A/U†	31-026	Cap/Chain	K	.....	45/64	1.25	1.00	.67
713-1008	CW-155/U	31-007	Cap Only	..	.....	37/64	.95	.76	.51
713-1022	CW-159/U	31-017	Cap/Chain	K		1 1/16	2.23	1.78	1.18
713R9554	UG-185	4500	Pnl Recp	G		1 5/64	2.93	2.34	1.56
713-1020	UG-254A/U	31-016	Bhd Recp	B		1 15/32	10.00	8.00	5.32
713R1017	UG-260/U†	31-012	Plug	A	59, 62, 71	31/32	1.63	1.30	.86
713-1027	UG-260A/U†	31-021	Plug	A	59, 62, 71	1	1.63	1.30	.86
713R1059	UG-260B/U†	31-212	Plug	A	59, 62, 71, 210	1 1/16	1.50	1.20	.80
713-1018	UG-261/U	31-015	Jack	H	59, 62, 71	1 1/8	2.58	2.06	1.37
713-1060	UG-261B/U	31-215	Jack	H	59, 62, 71	1 9/64	2.45	1.96	1.30
713-1014	UG-262U	31-011	Pnl. Jack	C	59, 62, 71	1 1/8	3.20	2.56	1.70
713R1010	UG-274/U†	31-008	"T" Adptr	E	.....	1 9/32	4.25	3.40	2.26
713R1053	UG-274A/U†	31-208	"T" Adptr.	E	.....	1 9/32	4.25	3.40	2.26
713R1005	UG-290/U†	31-003	Pnl Recp	G	.....	1 1/32	1.63	1.30	.86
713-1043	UG-290A†	31-203	Pnl. Recp.	G	.....	1 1/16	2.00	1.60	1.06
713-1000	UG-2912U	31-001	Pnl. Jack	C	55, 58	1 1/8	4.70	3.76	2.50
713R1013	UG-306/U†	31-009	Angle Adptr.	F	.....	1	4.00	3.20	2.13
713-1092	UG-447/U†	31-817	Pnl. Recp.	G	.....	1 1/32	2.43	1.94	1.29
713R1067	UG-491A/U†	31-218	Adapter	J	.....	1 1/4	4.05	3.24	2.13
713R1071	UG-492A/U†	31-220	Bkhd Adptr	D		1 13/32	4.15	3.32	2.18
713R9571	UG-625/U†	5575	Bkhd. Recp.	B		1 1/32	1.45	1.16	.77
713R1079	UG-625B/U	31-236	Bkhd. Recp.	B	.....	1 1/16	1.25	1.00	.66
713R1035	UG-657/U†	31-102	Bkhd Recp	B		1 19/64	2.02	1.62	1.06
713-1048	UG-909/U†	31-206	Bkhd. Jack	..	55, 58	1 1/8	3.45	2.76	1.82
713-1082	UG-912/U	31-238	Bkhd. Recp.	B	.....	1 13/64	3.58	2.86	1.90
713R1069	UG-914/U†	31-219	Adapter	I		1 9/32	2.05	1.64	1.08
713R1073	UG1094/U†	31-221	Bkhd. Recp.	B	.....	1 1/16	1.10	.88	.58
713-1099	UG 1094A U	31-2221	Bkhd. Recp.	B	.....	1 13/64	1.88	1.50	.99

"BETWEEN SERIES" ADAPTERS

Provide positive connection between RF connectors. Non-constant impedance but minimal resistance.

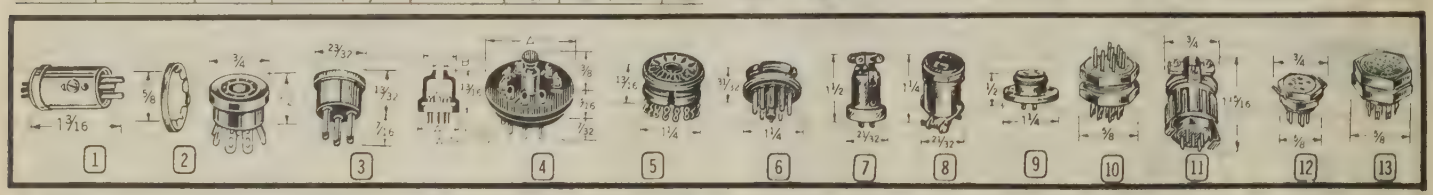
Stock No.	Military No.	Mfr's Type	Description	Lgth., In.	EACH 1-24	25-99	100-Up
713-1095	UG-201/U	31-830	N plug, BNC jack	1 15/32	5.60	4.48	2.98
713-1063	UG-210A/U†	31-216	N plug, BNC jack	1 5/16	3.95	3.16	2.10
713R1033	UG-273/U	31-028	BNC jack, UHF plug	1 3/16	2.40	1.92	1.28
713-1065	UG-394A/U†	31-217	N jack, BNC plug	1 9/16	5.63	4.50	2.99
713-0828	.....	27-28	BNC plug, 50-ohm screw-on subminax jack	1 5/16	4.85	3.88	2.51

"QUICK-CRIMP" BNC'S

For crimp or solder connection to cable. Even when center contact is crimped, connector maintains constant impedance. VSWR identical to std. solder-type BNC's up to 10,000 MHz. Connectors may be used with other than 50-ohm cable for non-impedance match. Rated 500 V. max. Imped., 50 ohms. VSWR—1.25:1 max. (straight plug & jack). Cable retentions equal to cable braid. Teflon dielectric. Bronze female and outer contact. Male contact and all other parts brass. Center contact gold plated; other parts silver plated. Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	Fig.	Sim to UG/-U	Description	Use With Type RG/U Cable	EACH 1-24	25-99	100-Up
713R9784	36775	L	88F	Plug	58,58A,58C,141	1.85	1.48	.98
713-9785	36800	N	89C	Cable Jack	58,58A,58C,59/A/B,62,141	2.98	2.38	1.58
713-9818	68175	L	260B	Plug	59,62,71,140,210	1.85	1.48	.98
713-9861	95725	M	909B	Bkhd. Jack	58,58A,58C,59,141,210	4.33	3.46	2.30
713-9857	95625	P	913A	Angle Plug	62/A/C,140,59,210	10.95	8.76	5.83

Alec Electron Says You Do Yourself a Great Service When You Buy From Allied Electronics



MINIATURE SPECIAL-PURPOSE CABLE CONNECTORS

Series 91: For shielded or unshielded cables. Black phenolic elements in cadmium-plated brass shells, held by set screws. Polarized contact spacing. Accommodates cables to ¼" dia. Suffix "L" in Type No.—long (1 3/16"); "S"—short (13/16"). Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	Con-tacts	Fig.	EACH 1-24	25-49	50-99	100-Up
713-4054	91-MPM3L	3	1	.75	.60	.43	.40
713-4055	91-MPM3S	3	1	.75	.60	.43	.40
713-4057	91-MPM4S	4	1	1.06	.85	.68	.56
713-4058	91-MPM5L	5	1	.87	.70	.56	.46
713-4059	91-MPM6L	6	1	.86	.69	.55	.46

MINIATURE SERIES 71 PLUGS, 78 SOCKETS

Series 78 are retainer-ring sockets that mount in ⅝" round or "D" hole. Black bakelite. Series 71 are compact, high-dielectric plugs. Nickel-plated brass prongs recessed to prevent shorts. Contacts polarized. Rated 5 amps at 500 V. Av. shpg. wt. 1 oz.

713-2925	78-S3S	3	2	.23	.18	.15	.14
713-2931	78-S6S	6	2	.37	.30	.25	.21
713-2355	71-3S	3	3	.27	.22	.18	.16
713-2360	71-4S	4	3	.32	.26	.21	.18
713-2374	71-6S	6	3	.41	.32	.26	.23

MINIATURE TYPE CP PLUGS FOR TUBE SOCKETS

Molded from diallyl phthalate; molded-in strain relief post. Retainer-ring mounting. Contacts gold over silver plating. 1500 V rms at 5 A. Overall seated height, 13/16". Overall width: 86-895, 55/64"; 86-897, ⅞". Pin circle diameter: 7-pin, ⅜"; 9-pin, 15/32". Wt. 2. oz.

Stock No.	Mfr's Type	Description	Fig.	EACH 1-24	25-49	50-99	100-Up
713-3640	86-895	7-Pin with Cap	4	2.09	1.67	1.40	1.28
713-3642	86-897	9-Pin with Cap	4	2.28	1.82	1.52	1.39

CHASSIS & CABLE-MOUNT CONNECTORS

Alec Electron

8 & 11-PIN PLUGS & SOCKETS

Mount in 1 11/64" keyed hole (use 8RO retainer ring). Type 8PB fits octal socket; 11RB takes 11PB plug. Type 16F snap-on shield fits all. Shpg. wt. 1 oz.

Stock No.	Mfr's Type	Description	Fig.	EACH 1-9	10-24	25-49	50-Up
750R0962	8PB	8-Pin Plug	5	.88	.70	.49	.33
750-1025	11PB	11-Pin Plug	5	.55	.44	.31	.27
750-1027	11RB	11-Pin Skt.	6	.58	.46	.32	.28
750-1047	16F	Shield	..	1.53	1.22	.95	.77
750-0971	8RO	Ret. Ring	.....	.16	.13	.10	.09

2-CONTACT POLARIZED CONNECTORS

¾"-24 threaded fittings. P-202-B and S-202-B have 1" mtg. ctrs. Prefix "P" denotes male, "S" female. Use S-202-B with P-202-CCT for cable extension. 3 oz.

Stock No.	Mfr's Type	Fig.	EACH 1-24	25-49	50-99	100-Up
750R0403	P-202-CCT	7	1.68	1.34	1.07	.95
750R0607	S-202-CCT	7	1.80	1.44	1.15	.90
750-0402	P-202-B	9	2.03	1.62	1.30	1.15
750R0606	S-202-B	9	2.05	1.64	1.31	1.03
750-0608	S-202-CCT-THR	8	2.35	1.88	1.50	1.18

SPECIAL-PURPOSE & MULTI-PURPOSE CONNECTORS

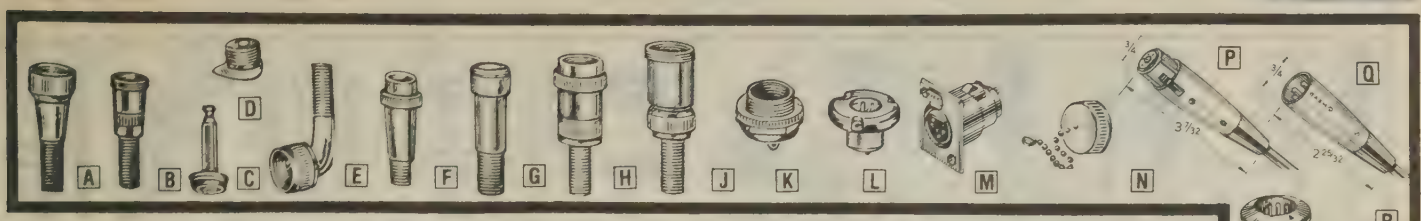
MINIATURE HEXAGON CONNECTORS

Contacts gold-filled. Hdw. nickel plated brass. Voltage breakdown: 5000 V rms, 60 Hz at sea level. Current rating: 7.5 amps. Hex-nut types are for panel mounting in .5156" hole. Locking-clip types mate with hood and cable-clamp types. Locking ring on cable clamp swivels 30°. Hex-nut types are ⅝" dia.; cable-clamp types ¾" dia. (length, 1 15/16"). Av. shpg. wt. 5 oz.

Stock No.	Mfr's Type	Con-tacts	Type	Fig.	EACH 1-9	10-49	50-99	100-Up
713-4500	126-010	5	Male Recep	10	1.43	1.14	.87	.76
713-4515	126-191	7	Male Recep.	10	1.70	1.36	1.04	.90
713-4502	126-012	9	Male Recep.	10	1.93	1.54	1.18	1.02
713R4526	126-217	5	Male Plug	11	3.13	2.50	1.91	1.66
713R4517	126-195	7	Male Plug	11	3.40	2.72	2.08	1.87
713R4529	126-220	9	Male Plug	11	3.68	2.94	2.25	1.96
713-4525	126-216	5	Male Recp	12	1.53	1.22	.93	.81
713-4519	126-197	7	Male Recp	12	1.83	1.46	1.12	.97
713-4528	126-219	9	Male Recp	12	2.10	1.68	1.29	1.12
713-4501	126-011	5	Fem Recp	11	2.28	1.82	1.39	1.21
713-4516	126-192	7	Fem. Recp	11	2.90	2.32	1.77	1.54
713-4503	126-013	9	Fem. Recp.	11	3.55	2.84	2.17	1.89
713R4532	126-223	5	Fem. Plug	13	4.03	3.22	2.46	2.14
713-4518	126-196	7	Fem. Plug	13	4.63	3.70	2.83	2.46
713R4531	126-222	9	Fem. Plug	13	5.25	4.40	3.21	2.79
713R4527	126-218	5	Fem. Recp.	12	2.43	1.94	1.48	1.29
713R4520	126-198	7	Fem. Recp.	12	3.00	2.40	1.84	1.60
713R4530	126-221	9	Fem. Recp.	12	3.68	2.94	2.25	1.96

Alec Electron Suggests You Look into Our Broad Line of Connectors

Audio Connectors, Phone Plugs, Extension Jacks



SERIES 75 SINGLE-BUTTON-CONTACT TYPES

Standard connectors with ⅜", 27 threads. Types marked with * require ⅜" mtg. holes. Order complementary cap and chain assemblies below. Av. shpg. wt., 4 oz.

Stock No.	Mfr's Type	Fig.	Description	EACH 1-24	25-49	50-99	100-Up
713R2710	75-MC1F	A	Straight plug	1.35	1.08	.86	.68
713-2718	75-MC1M	B	Cable plug	.96	.76	.61	.48
713-2729	75-MC1P	C	Phone plug adap.	.36	.29	.23	.18
713-2740	*75-PC1M	D	Receptacle open	.36	.76	.61	.48
713-2715	75-MC1FA	E	90° cable jack	2.91	2.33	1.86	1.46

SERIES 80 SINGLE AND DOUBLE-PIN-CONTACT TYPES

For shielded cables, single and two-conductor coaxial cables, photo cell leads, etc. Center contacts are pin and socket type. *Single-contact. †Polarized, double-contact. Av. shpg. wt., 4 oz.

Stock No.	Mfr's Type	Fig.	Description	EACH 1-9	10-24	25-49	50-Up
713-3100	*80-C	K	Female recept.	1.19	.95	.76	.59
713-3104	*80-M	F	Male cable plug	1.49	1.19	.95	.74
713-3106	180-MC2F	G	Fem. cable jack	1.67	1.34	1.07	.84
713-3107	180-MC2F1	F	Fem. cable plug	1.67	1.34	1.07	.84
713R3105	180-MC2M	F	Male cable plug	1.53	1.22	.98	.77
713-3109	180-MC2M1	G	Male cable jack	1.56	1.25	1.00	.78
713R3110	80-PC2F	K	Female recept.	1.30	1.04	.83	.65
713-3111	180-PC2M	K	Male receptacle	1.30	1.04	.83	.65

Type 75-CCC1 Cap and Chain. Seals open chassis units against dirt. Used with Series 75 and 80 receptacles. Shpg. wt. 2 oz.

713-2704. 1-24 ..... Each .92 25-49 ..... Each .73
50-99 ..... Each .59 100-up ..... Each .46

3-CONTACT RIGHT-ANGLE CONNECTORS

Right-angle configuration to reduce "cable clutter." Neoprene cable strain relief bushing keyed to shell. Ribbed Die-cast zinc alloy with satin-nickel finish. Wt 2 oz.

Stock No.	Mfr's Type	Cannon Equivalent	Fig.	Description	EACH 1-9	10-24	25-49	50-Up
932-0160	R3F	XLR-3-15	S	Female Plug	6.30	4.20	3.85	3.50
932-0161	R3M		T	Male Plug	5.80	3.87	3.55	3.23

SERIES 91—3, 4 AND 6-CONTACT TYPES

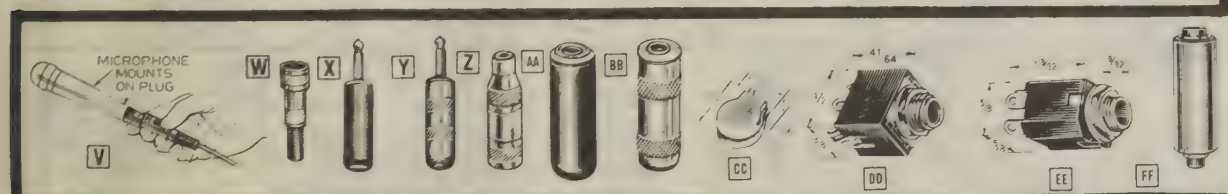
Microphone connectors for use with portable equipment. Polarized to eliminate incorrect insertions. Clamps eliminate stress on soldered connections. *3-contact type. †4-contact type. ‡6-contact type. Shpg. wt., 4 oz.

Stock No.	Mfr's Type	Fig.	Description	EACH 1-24	25-49	50-99	100-Up
713-4011	*91-MC3F	J	Fem. cable jack	2.03	1.62	1.29	1.01
713-4012	*91-MC3F1	H	Fem. cable plug	2.11	1.69	1.35	1.05
713R4013	*91-MC3M	H	Male cable plug	1.99	1.59	1.27	.99
713-4014	*91-MC3M1	J	Male cable jack	1.90	1.52	1.21	.95
713-4033	*91-PC3F	K	Female recept	1.43	1.14	.92	.72
713-4035	*91-PC3M	K	Male receptacle	1.29	1.03	.83	.65
713-4017	†91-MC4F	J	Fem. cable jack	2.09	1.67	1.34	1.05
713-4018	†91-MC4F1	H	Fem. cable plug	2.20	1.76	1.40	1.10
713R4019	†91-MC4M	H	Male cable plug	2.03	1.62	1.30	1.01
713-4020	†91-MC4M1	J	Male cable jack	1.99	1.59	1.27	1.00
713R4034	†91-PC4F	K	Female recept	1.34	1.07	.85	.67
713-4037	†91-PC4M	K	Male receptacle	1.30	1.04	.83	.65
713-4025	‡91-MC6F	J	Fem. cable jack	2.16	1.72	1.38	1.08
713-4027	‡91-MC6M	H	Male cable plug	2.09	1.67	1.34	1.05
713-4043	‡91-PC6F	K	Female recept.	1.47	1.17	.94	.73

3 AND 4-CONTACT PLUGS AND RECEPTACLES

Up to 3 circuit contacts plus electrically integrated ground terminal on shell. Neoprene cable strain relief bushing keyed to shell, ribbed for easy access to male plugs. Die-cast zinc alloy with satin-nickel finish. Series 91 locked connection releases with light pressure on lock button. Gold-plated (over silver) bronze contacts. *Single hole mounting. Wt 2 oz except * 4 oz.

Stock No.	Mfr's Type	Fig.	Cannon Equivalent	Description	EACH 1-9	10-24	25-49	50-Up
932R0002	A3F	P	XLR-3-11C	3-con. Fem. Plug	2.48	1.86	1.71	1.55
932R0003	A3M	Q	XLR-3-12C	3-con. Male Plug	2.13	1.59	1.46	1.33
932-0004	A4F	P	XLR-4-11C	4-con. Fem. Plug	3.48	2.30	2.12	1.93
932-0005	A4M	Q	XLR-4-12C	4-con. Male Plug	2.28	1.71	1.57	1.43
932-0009	B3M	Q	XLR-3-14N	*3-con. Male Recpt.	3.43	2.28	2.09	1.90
932R0012	C3M	U	XLR-3-134	3-con. Male Recpt.	1.65	1.23	1.13	1.03
932R0011	C3F	R	XLR 3-13	3-con. Fem. Recpt	3.28	2.46	2.26	2.05
932R0030	D3F	M	XLR-3-31	3-con. Fem. Recpt.	3.35	2.52	2.31	2.10
713-4087	†91-855	L	.....	3-con. Male Recpt.	2.65	2.12	1.70	1.59
713-4091	†91-859	L	.....	4-con. Male Recpt	2.85	2.28	1.82	1.43



STRAIGHT CORD PLUG WITH ON/OFF SWITCH

Built-in switch permits instant fingertip control of audio. Provides inline DPDT control of 3-conductor circuits. Switch rated 1 amp, 125 VAC or 0.5 amp, 125 VDC. Female connector has quick-ground feature. Wt 2 oz.

Stock No.	Mfr's Type	Fig.	Description	EACH 1-9	10-24	25-49	50-Up
932-0203	T3F	V	3-con. plug	8.55	5.70	5.23	4.75

"TINI-PLUGS" SUBMINIATURE PHONE PLUGS

For use with "Tini-D-Jax" and "Tini-Jax" phone jacks. 1⅛" overall length. 2-conductor. Handles are plastic or nickeled brass (shielded). Screw terminals. Av. shpg. wt. 1 oz.

Stock No.	Equiv. Type	Fig.	Handle	EACH 1-9	10-24	25-49	50-Up
932R1335	740 33-740	X	Black	1.03	.89	.83	.58
932-1339	745 33-670	X	Red	1.03	.89	.83	.58
932-1354	770 33-666	Y	Shield	1.45	.96	.88	.80

Type 125 "Tini-Extension Jax." 2-conductor; with solder lug terminals. Mate with "Tini-Plugs." Av. shpg. wt., 2 oz.
932-0965. 1-9 Ea. 1.80 10-24 Ea. 1.20 25-49 Ea. 1.10 50-99 Ea. 1.00

"EXTENSION JAX" CABLE EXTENSION JACKS

AA, BB Open circuit. Fit std. ¼" plugs. 1⅛" O.D. 2½" long; 121 and 131, ½" O.D., 2½" long. Black handles, plastic; shielded are nickeled brass. §Screw terminals, other solder. 3 oz.

2-CONDUCTOR TYPE

932-0884	90 33-736	AA	Black	1.63	1.08	.99	.90
932-0957	120 33-734	BB	Shield	2.15	1.44	1.32	1.20

3-CONDUCTOR TYPE

932-1440	1230 33-542	BB	Shield	2.80	1.86	1.71	1.55

"MINI-CON" MICROPHONE-TYPE CONNECTOR

For single-conductor shielded cables to .4" O.D. Coupling ring reversible for easy change of female to male.

Stock No.	Mfr's Type	Equiv. Type	Fig.	Description	EACH 1-9	10-24	25-49	50-Up
932-1620	5600 F	33-223	W	Female	.90	.60	.55	.50

331A ADAPTER KIT

932-1108. 11 audio adapters, 1 cable. 1 Ea.: 25AF25 — 36" shielded cable, plug each end; 25Y mike-con. Y adapt.; 335F1 ¼ adapt.; 332A, 2 cond. phone jack for F mike out-put, 334A, phone jack to phono plug; 336A, phone in, to phone out.; 336B, phone in, to jack out.; 345 jack in, to plug out. 2 Ea.: Type 44 adapt.; M mike to phone plug; 349 coupler, phono jacks each end. Wt. 1 lb 12.75

JACK COVERS

CC Spring-loaded. Use with reg. ⅜"-32 thrd. bushing jacks. Locknut seals into rubber washer inside cover. 3 oz.

Stock No.	Mfr's Type	Color	Fig.	EACH 1-9	10-24	25-49	50-Up
932-1280	512	Nickel	CC	1.48	.99	.91	.83
932-1283	515	Black	CC	1.48	.99	.91	.83
932-1287	520	Gray	CC	1.48	.99	.91	.83

JACK SCHEMATIC DIAGRAMS

See below. OC indicates open circuit; CC, closed circuit. TC transfer circuit; RCC ring closed circuit.

"TINI-D-JAX" ENCLOSED PHONE JACK

DD Completely enclosed subminiature 2-cond. phone jacks. Fully insulated molded plastic housing protects nickel-plated contact springs. Mate with "Tini-Plugs." ⅜" depth behind panel. Bushing ⅜"-32 threaded x .203" long. Average shpg. wt. 2 oz.

Stock No.	Mfr's Type	Diagram	Fig.	EACH 1-9	10-24	25-49	50-Up
868-0975	337ENC	I	DD	.60	.48	.40	.34

"HI-D JAX"

EE High density phone jack. Only ⅝" sq., 7⅛" grams. Nickel-silver-plated springs. Mnt. in ⅜" hole, panels to ⅝2" thick. Take std. 2/3-cond. ¼" plugs. Hardware incl. *For stereo. Wt. 2 oz.

2-CONDUCTOR TYPES

Stock No.	Mfr's Type	Diagram	Fig.	EACH 1-9	10-24	25-49	50-Up
868R0940	336ENC	I	EE	.53	.42	.35	.30
868R0941	337ENC	II	EE	.55	.44	.37	.31

3-CONDUCTOR TYPES

868R0942	338ENC	III	EE	.60	.48	.40	.34
932-0944	113B	IV	EE	.90	.60	.55	.50
868R0952	*335ENC	VII	EE	1.00	.80	.67	.57

ASSORTED AUDIO ADAPTERS

FF GG HH JJ KK LL

30-471: adaptor with phono pin jack on one end; other end std. mike connector. **30-1570:** phone plug coupler has std. 2 cond. ¼" phone jack on each end. **30-1570:** phone plug coupler has std. 2 cond. ¼" phone jack on each end. **30-472:** adaptor with std. ¼", 2 cond. phone plug on one end; other end phono pin jack. **33-864:** coupler connects 2 male-type mike conn. **33-852:** adaptor with RCA-type phono jack input, std. phone plug output, heavy-duty metal shielded type. **33-856:** adaptor with RCA-type phono jack input female mike conn. output.

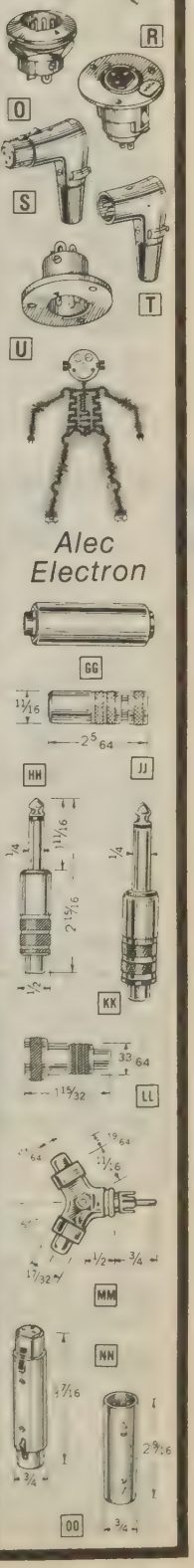
Stock No.	Mfr's Type	Fig.	Description	EACH 1-9	10-24	25-49	50-Up
932-3471	30-471	FF	Phono adapter	3.15	2.61	2.39	2.18
932-3570	30-1570	GG	Phone adapter	1.58	1.32	1.21	1.10
932-3472	30-472	HH	Phone adapter	2.03	1.68	1.54	1.40
932-3864	33-864	JJ	Mike Coupler	2.18	1.74	1.50	1.36
932-3852	33-852	KK	Phono/Phono Adp.	2.28	1.82	1.57	1.43
932-3856	33-856	LL	Phono Mike Adp	2.18	1.74	1.50	1.36

JACK ADAPTERS AND CONNECTORS

MM NN 00

3288 pin plug with mike connector. 389 3-contact mike receptacle input to same output. 390 3-pin mike plug to equipment with this output. Av. wt. 4 oz.

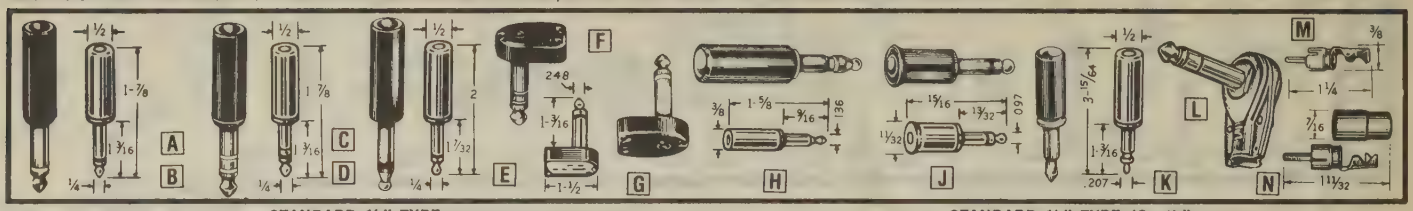
Stock No	Mfr's Type	Fig	Description	EACH 1-9	10-24	25-49	50-Up
932-1103	330F	MM	2 Phono Pin Jacks Phono Pin Plug	2.35	1.56	1.43	1.30
932R1219	389	NN	Double-ended 3-contact recpt.	5.73	3.81	3.49	3.18
932R1220	390	00	Double-ended 3-pin plug	4.83	3.21	2.94	2.68



Allied® Phone, Phono, Extension Plugs and Jacks

PHONE PLUGS

Made to standard dimensions to mate with all standard items. Nickel-plated brass and Delrin. Solder connections are tinned.



STANDARD ¼" TYPE

Stock No.	Mfr's Type	Fig.	Color	Description	EACH 1-99	100-499	500-999	1000-Up
868R3001	1300B	A	Black	2-cond. Screw term. Mates w/jacks 3360, 3370.	.83	.66	.55	.47
868-3002	1300R		Red		.83	.66	.55	.47
868-3003	1300M		Metal		1.25	1.00	.84	.71
868R3010	1301B	B	Black	2-cond. Solder term. Mates w/jacks 3360, 3370.	.77	.62	.52	.44
868-3011	1301R		Red		.77	.62	.52	.44
868-3012	1301M		Metal		1.20	.96	.80	.70
868R3020	1302B	C	Black	3-cond. Solder term. Mates w/jacks 3380, 3390.	1.18	.94	.79	.67
868-3021	1302R		Red		1.18	.94	.79	.67
868-3022	1302M		Metal		1.52	1.22	1.02	.87
868-3030	1303B	D	Black	3-cond. Screw term. Mates w/jacks 3380, 3390.	1.39	1.11	.93	.79
868-3031	1303R		Red		1.39	1.11	.93	.79
868-3032	1303M		Metal		1.59	1.27	1.06	.91
868-3051	3060B	F	Black	Right angle type. 3-cond. Screw Terminals. Mates, 3380, 3390.	1.17	.94	.78	.67
932-1020	227 33-682	L	Black	2-cond. Screw term.	1.25	.66	.50	.45
932-1029	237 33-676	L	Black	3-cond. Solder term.	1.90	.84	.80	.67

STANDARD ¼" TYPE (Cont'd)

Stock No.	Mfr's Type	Fig.	Color	Description	EACH 1-99	100-499	500-999	1000-Up
868-3060	3090B	G	Black	Right angle type. 2-cond. Mates with 3360 and 3370.	1.01	.804	.672	.576

MILITARY SPECIFICATION TYPE

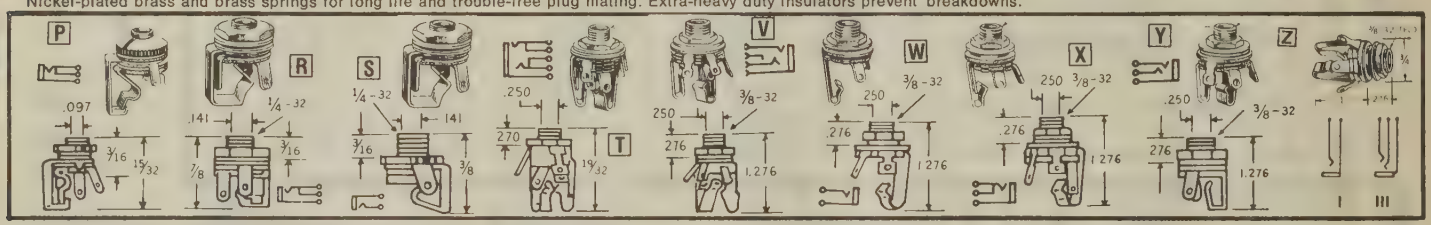
868-3040	3040B	E	Black	Mil PJ055. 2-cond. Solder Term.	1.59	1.27	1.06	.90
868-3200	3200B	K	Black	Mil PJ068. 3-cond. Solder Screw Term.	3.50	2.80	2.34	2.00

MINIATURE AND SUB-MINIATURE TYPES

868R3054	3070B	H	Black	2-cond. Solder Terminals. Mates w/3110 and 3130.	.65	.516	.432	.372
868-3056	3070R		Red		.65	.516	.432	.372
868-3055	3070M		Metal		.90	.72	.60	.516
868R3057	3080B	J	Black	2-conductor. Solder Term. Mates with jack 3100.	.61	.492	.408	.348
868-3059	3080R		Metal		.61	.492	.408	.348
868-0044	44A	M	Metal	Phono Plug.	.17	.13	.11	.09
932-1522	3508-1	N	Red	Plug.	.28	.14	.13	.12
932-1523	3508-2		Black	Plug.	.28	.14	.13	.12
932-1526	3508-5		White	Plug.	.28	.14	.13	.12

PHONE JACKS

Nickel-plated brass and brass springs for long life and trouble-free plug mating. Extra-heavy duty insulators prevent breakdowns.

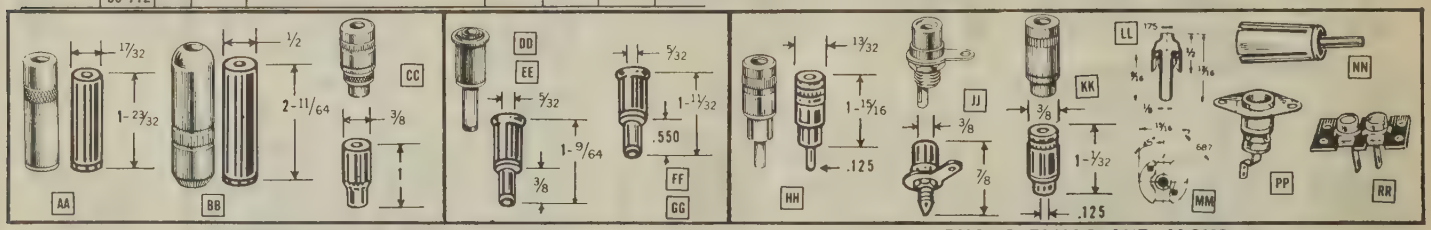


MINIATURE AND SUB-MINIATURE AND ¼" STEREO TYPES

Stock No.	Mfr's Type	Fig.	Color	Description	EACH 1-99	100-499	500-999	1000-Up
868-3063	3100	P	Metal	2-conductor. Fits plug 3080.	.47	.372	.312	.264
868R3064	3110	R	Metal	2-cond. Closed circuit. Fits plug 3070.	.43	.348	.288	.252
868R3066	3130	S	Metal	2-cond. Open circuit. Fits plug 3070.	.40	.312	.264	.228
868-3350	3350	T	Metal	Stereo Phono Jack. Fits Plugs 1302, 1303, 3060.	1.36	1.09	.91	.77
932-0013	C-11 33-694	Z	Metal	2-cond. for Std. ¼" Plugs.	.95	.42	.40	.38
932-0189	S-11 33-700	Z	Metal	2-cond. for S-250, S-280, 385 Plugs	.68	.30	.27	.25
932-0015	C-12B 33-712	Z	Metal	3-cond. for 480 Mil-Type.	1.08	.48	.46	.44

STANDARD ¼" TYPE

Stock No.	Mfr's Type	Fig.	Color	Description	EACH 1-99	100-499	500-999	1000-Up
868-3390	3390	V	Metal	3-cond. Closed Circuit. Fits 1302, 1303, 3060.	1.12	.90	.75	.64
868R3360	3360	W	Metal	2-cond. Open Circuit. Fits 1300, 1301, 3040, 3090.	.58	.46	.38	.33
868R3370	3370	X	Metal	2-cond. Closed Circuit. Fits 1300, 1301, 3040, 3090.	.88	.70	.59	.50
868R3380	3380	Y	Metal	3-cond. Open Circuit. Fits 1302, 1303, 3060.	.66	.52	.44	.37



EXTENSION IN-LINE PHONO JACKS

STANDARD ¼" TYPE

Stock No.	Mfr's Type	Fig.	Color	Description	EACH 1-99	100-499	500-999	1000-Up
868-3401	6101	AA	Metal	2-conductor.	1.38	1.10	.92	.78
868-3403	6103	BB	Metal	3-conductor.	1.64	1.32	1.10	.94

MINIATURE

868-3405	6105	CC	Metal	2-conductor.	1.08	.804	.672	.576

AC ADAPTER COAXIAL JACKS

Stock No.	Mfr's Type	Fig.	Color	Description	EACH 1-99	100-299	300-499	500-Up
868-6200	6-200	DD	Green	.080 I.D./.218 O.D.	.76	.61	.51	.43
868-6201	6-201	FF	Red	.097 I.D./.218 O.D.	.76	.61	.51	.43
868-6202	6-202	EE	Blue	.080 I.D./.195 O.D.	.90	.72	.60	.51
868-6203	6-203	GG	Tan	.097 I.D./.195 O.D.	.90	.72	.60	.51

PHONO PLUGS AND JACKS

Precision shape guarantees firm contact. Well-anchored insulators prevent turning and wires pulling loose.

STANDARD SIZE FITS ALL PHONO PLUGS AND JACKS

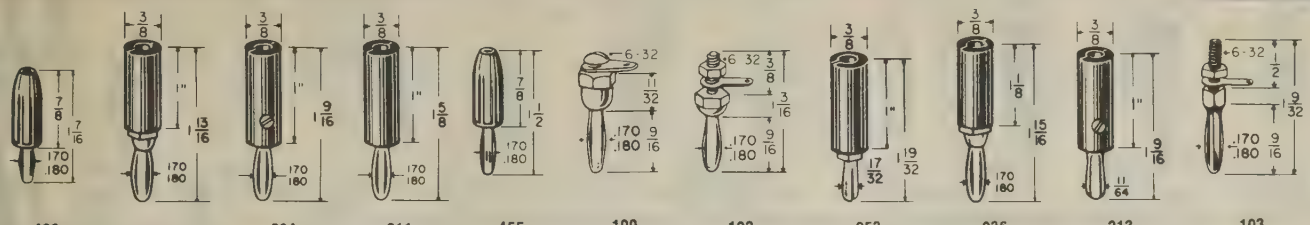
Stock No.	Mfr's Type	Fig.	Description	EACH 1-99	100-499	500-999	1000-Up
868-3396	5005	HH	Phono Plug. ¼" size. Shielded handle.	.55	.44	.37	.31
868-3400	3400	JJ	Phono Jack. Front mount in ⅜" hole.	.29	.228	.192	.168
868-3397	5006	KK	In-line Phono Jack.	.63	.51	.42	.36
920-1200	1200	NN	Phono Plug. ¼" size for coaxial antenna lead-in to auto radio.	.16	.13	.11	.09
920-1214	1214	PP	Motorola F conn. Jack. 1⅝2" hole.	.20	.16	.14	.12
920-1207	1207	RR	RCA-type Phono Jack 1½ x 1" Base.	.27	.22	.18	.15

Jack mounted on 1/16" bakelite disc; 11/16" mtg. centers. Shielded pin and plug has ⅛" pin dia., 9/16" long.

868R0424	A10132	MM	Jack.	.09	.068	.056	.048
868R0425	MP101	LL	Plug.	.06	.048	.04	.034

Write, Wire or Phone for Larger Quantity Prices

Allied® Banana Plugs and Jacks



INSULATED BANANA PLUGS

Insulated banana plugs with unbreakable plastic handles. All are machined of the best materials, and inspected. Have sufficient spring tension to assure good holding power and minimum contact resistance. Average shpg. wt. 2 oz.

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920R0190 920-0241 920R0239 920-0240 920R0191	212 212 212 212 212	Red Yellow Green Blue Black	4-leaved phosphor-bronze sprg. hex brass body. Sep. internal brass stud for solderless or solder connection.	.47	.38	.31	.27
920R0192 920-0215 920-0213 920-0214 920R0193	204 204 204 204 204	Red Yellow Green Blue Black	4-leaved phosphor-bronze nickel-plated sprg. Lead wire conn. with set screw thru handle.	.41	.32	.27	.23
920R0194 920R0195 920R0236 920R0234 920-0235 920-0231	211 211 211 211 211 211	Red Black Yellow Green Blue White	4-leaved phosphor-bronze nickel-plated spring. Wire solders to plug or stud; or stud locks wire for solderless connection.	.41	.32	.27	.23
920R0196 920R0197	455 455	Red Black	4-leaf phosphor-bronze Nylon. Solderless.	.41 .42	.32 .33	.27 .28	.23 .24

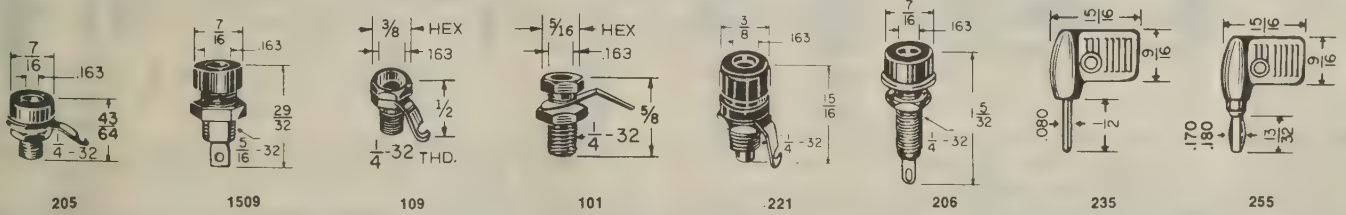
INSULATED BANANA PLUGS (Cont'd)

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920-0305 920-0306	253 253	Red Black	Split type with internal brass stud for solderless or soldered connection.	.43	.35	.29	.25
920R0284 920R0285	236 236	Red Black	4-leaved ni.-plated phos.-br. sprg. Threaded space for solderless conn.	.84	.67	.56	.48
920R0242 920R0243	213 213	Red Black	Cross-slotted body. Lead wire conn. with set scr.	.38	.30	.25	.21
920R0526 920-0527	426 426	Red Black	4-leaf, phos. bronze spring Nylon. Midget.	.38	.30	.25	.21

NON-INSULATED BANANA PLUGS

Feature four-leaved, phosphor-bronze nickel plated springs. Each is supplied with terminal lug and hex nut. Shpg. wt., 2 oz.

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920-0103	103	Nickel-plated	Threaded-shank type.	.39	.31	.26	.22
920R0198	100	Nickel-plated	Panel-mtg. type; 6-32 tapped body. Intern'l threads for panel use.	.45	.36	.30	.25
920R0199	102	Nickel-plated	Threaded-shank type; 4-leaf phosphor-bronze spring.	.45	.36	.30	.25



INSULATED BANANA JACKS

Heavy-duty, molded body. Supplied with fiber washer. Shpg. wt., 2 oz.

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920R0200 920-0220 920-0218 920-0219 920R0201	205 205 205 205 205	Red Yellow Green Blue Black	Plastic head; nickel-plated brass body. For 9/16" hole, panels up to 3/8" thick.	.27	.22	.18	.15
920R1521 920R1522 920R1525 920R1523 920R1524 920R1520	1509 1509 1509 1509 1509 1509	Red Black Yellow Green Blue White	Molded nylon jack. Locks into panel by means of double "D" body. For 9/16" hole, panel to 5/16".	.20	.16	.14	.12
920-0258 920-0259	221 221	Red Black	Nylon head; fit 5/16" mtg. hole; for panels up to 1/4"	.51	.41	.34	.29
920R0221 . . . . . . 920-0223 . . . . . . 920R0222	206 . . . 206 . . . 206	Red . . . . Green . . . . Black	Plastic head; nick.-plated brass body; takes ban. plug or tip plug; phos.-bronze spring. For 1/4" hole, up to 5/8" panel.	.43	.35	.29	.25

NON-INSULATED BANANA JACKS

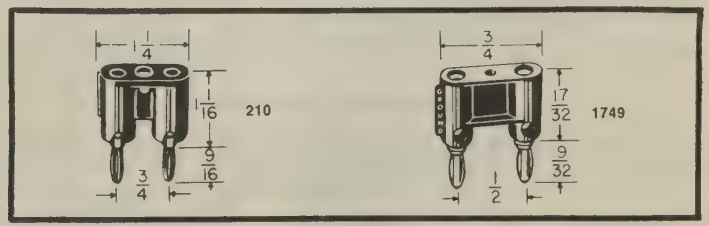
Bare brass, nickel-plated body. Fits 1/4" hole. 3/8" panel. Hex nut. 2 oz.

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920-0101	101	Metal	Tinned lug.	.26	.21	.17	.15
920-0109	109	Metal	With solder lug.	.26	.21	.17	.15

MOLDED RIGHT-ANGLE METER PLUGS

Right-angle plugs with plastic handles. Half shells assemble with one screw and nut. Lead wire solders to body. *Nickel-plated. Shpg. wt. 2 oz.

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920R0307 920R0308	255 255	Black Red	4-leaved phosphor-bronze springs.* Banana.	.65	.52	.43	.37
920-0280 920-0281	235 235	Black Red	Maximum wire insulation, 3/64". Phone tip.	.47	.38	.32	.27



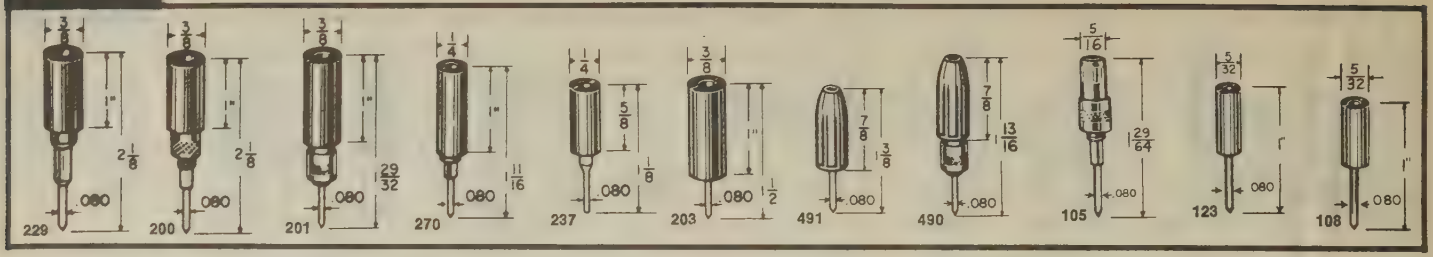
MOLDED DOUBLE BANANA PLUGS

Molded as single unit for banana jacks. Can be stacked for multiple connections. Molded polystyrene body per Fed. Spec. L-P416, Type 1. Nickel-plated brass plug. Takes wire to #12. 15-amp. rating. Shpg. wt. 3 oz.

Type 210. Standard Black Plug. 3/4" centers; overall (1 5/16" x 1 3/4").
920R0230. 1-24 ..... Each 1.08 25-49 ..... Each 1.35
50-99 ..... Each .77 100-Up ..... Each .90

Type 1749. Miniature Black Plug. 1/2" centers. Overall 1 7/32" x 27/32" x 1/2".
920-1859. 1-24 ..... Each .81 25-49 ..... Each 1.01
50-99 ..... Each .58 100-Up ..... Each .68

Allied® Tip Plugs, Jacks, Lug Adapters



Allied Electronics' own tip plugs and jacks are insulated and non-insulated types. Allied Electronics' own lug adapter is insulated type. All types are accurately molded and machined of U.S.A.-made materials, then rigidly inspected to assure and insure precision quality. Check our wide selection for all your electronic requirements . . . commercial, industrial, military. Tip jacks are supplied with hex mounting nut.

INSULATED TIP PLUGS

Feature nickel-plated brass construction for heavier current applications. Handles are molded thermosetting plastic except Type 237, molded butyrate; Types 490 and 491, molded nylon; and Type 270, fibre. 12 amps AC. Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920-0277	229	Red	Std. tip; large dia. for soldering heavy-duty wire into nickel-plated brass body.	.35	.28	.23	.20
920-0278	229	Black		.35	.28	.23	.20
920-8000	200	Red	Solderless; wire tightens securely under knurled collar.	.34	.27	.23	.19
920-8001	200	Black		.34	.27	.23	.19
920-0202	201	Red	"Jr." solderless phone tip; wire fastens under knurled collar.	.34	.27	.23	.19
920-0203	201	Black		.34	.27	.23	.19
920-0327	270	Red	Submin.; std. tip, extra small dia.	.41	.32	.27	.23
920-0328	270	Black		.41	.32	.27	.23
920-0289	237	Red	Hollow phone tip, solder-type.	.14	.11	.09	.08
920-0290	237	Black		.14	.11	.09	.08
920R0216	203	Red	Short tip plug for applications where minimum metal can be exposed.	.30	.24	.20	.17
920-0217	203	Black		.30	.24	.20	.17

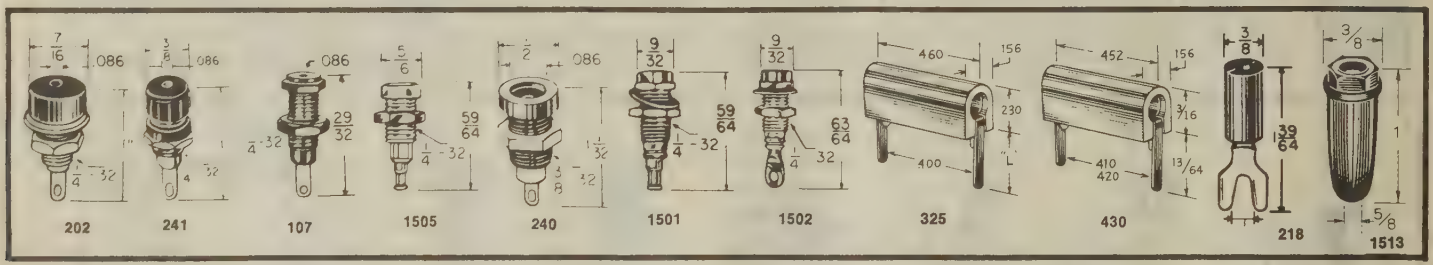
INSULATED TIP PLUGS (Cont'd)

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920R0578	491	Red	Short, tip plug (⅞" handle). Inserts flush, no metal exposed, Molded nylon handle. Threaded type.	.31	.25	.21	.18
920R0577	491	Black		.31	.25	.21	.18
920-0590	491	Yellow		.31	.25	.21	.18
920-0580	491	Green		.31	.25	.21	.18
920-0575	490	Red	Solderless tip plug with molded nylon handle. Threaded type.	.34	.27	.23	.19
920-0576	490	Black		.34	.27	.23	.19

NON-INSULATED TIP PLUGS

Nickel-plated brass phone tip plugs. Fit standard phone tip jacks. Type 123 .149" inside dia. for larger wire. Rated 12 amps AC, 10°C temp. rise, continuous duty. Av. shpg. wt. 2 oz.

920-0105	105	Nickel-plated	Solderless, all metal. Wire fastens under knurled collar.	.28	.23	.19	.16
920-0123	123	Nickel-plated	Heavy-duty solder-type.	.09	.07	.058	.05
920-0108	108	Nickel-plated	Std. solid phone tip. Solder type.	.07	.06	.05	.04



INSULATED TIP JACKS

Molded plastic heads with nickel-plated brass bodies. Phosphor-bronze contacts. Mount in 5/16" hole. With nut. 750 volts 60 cycle AC continuous working voltage. Capacitance 4.0 pf. **Type 202:** rated 15 amps AC for 10°C temp. rise, continuous duty. **Type 241:** rated 12 amps AC for 10°C temp. rise, continuous duty. Each 2 oz.

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920R0181	202	Red	With phosphor-bronze spring. Supplied with extruded fiber washer for insulated mounting in panel to ⅜" thick.	.32	.26	.22	.18
920-0208	202	Yellow		.32	.26	.22	.18
920-0206	202	Green		.32	.26	.22	.18
920-0207	202	Blue		.32	.26	.22	.18
920R0182	202	Black		.32	.26	.22	.18
920-0292	241	Red	Supplied with molded nylon head, washer.	.51	.41	.34	.29
920-0293	241	Black		.51	.41	.34	.29

NON-INSULATED TIP JACK

All metal. Nickel-plated brass body, phosphor-bronze contact. With nut. Rated 15 amps AC for 10°C temperature rise, continuous duty. Shpg. wt. 2 oz.

920-0107	107	Nickel-plated	Mounts in ¼" hole; fits panels to ⅜" thick.	.38	.30	.25	.21

NYLON-INSULATED TIP JACKS

Each has self-insulating nylon-insulated body. Hex nuts are nickel-plated brass. All accommodate standard phone tip plugs. All rated 15 amps AC for 10°C temperature rise, continuous duty, except **Type 240** rated 10 amps AC. **Types 1501** and **1502** have metal shell to prevent stripped threads. Average shipping wt. each 2 oz.

Stock No.	Mfr's Type	Color	Description	EACH 1-99	100-299	300-499	500-Up
920R1512	1505	Black	Wrap-around type. Hex head. Mount in ¼" hole in panels to ¼" thick.	.36	.29	.24	.21
920-1516	1505	Yellow		.36	.29	.24	.21
920-1514	1505	Green		.36	.29	.24	.21
920-1515	1505	Blue		.36	.29	.24	.21
920R1513	1505	Red		.36	.29	.24	.21
920-0294	240	Red	Ph. br. spring. For ⅜" hole, to 5/16" panel. Rated 5000V.	.34	.27	.23	.19
920-0295	240	Black		.34	.27	.23	.19
920-8012	1501	Red	Wrap-around type made to **MS-16108** specifications	.49	.39	.32	.28
920-1501	1501	Black		.49	.39	.32	.28
920-1502	1501	White		.49	.39	.32	.28
920-1509	1502	Black	Spade type made to **MS-16108** specifications.	.68	.54	.45	.38

RIGHT ANGLE STANDARD AND MIL-TYPE TEST JACKS

Accept standard .080" diameter probe tips at either end. Snap into .052" diameter holes on .400" centers. Type 430 is for use with PC boards up to 3/16" thick; Type 325 is for use with PC boards up to 1/16" thick. Type 430 is tested to **MIL-P-20693A** for nylon; **MIL-STD-202B** for mechanical tests. Type 325 is made to meet **MIL-C-39024/11.** Both units rated at 5 amps and 1.5 kV, 60 Hz continuous. Both units can be spaced side-by-side .160" on center minimum. 2 oz.

Stock No.	Mfr's Type	Color	EACH 1-99	100-299	300-499	500-Up
920-0435	325	White	.20	.16	.14	.12
920-0430	325	Red	.20	.16	.14	.12
920-0429	325	Black	.20	.16	.14	.12
920-0432	325	Green	.20	.16	.14	.12
920-0433	325	Blue	.20	.16	.14	.12
920-0431	325	Yellow	.20	.16	.14	.12
920-0434	325	Gray	.20	.16	.14	.12
920-0539	430	White	.25	.20	.17	.145
920-0532	430	Red	.25	.20	.17	.145
920-0530	430	Black	.25	.20	.17	.145
920-0535	430	Green	.25	.20	.17	.145
920-0536	430	Blue	.25	.20	.17	.145
920-0534	430	Yellow	.25	.20	.17	.145
920-0538	430	Gray	.25	.20	.17	.145

INSULATED SPADE LUG ADAPTER

Banana plug to spade lug adapter. Molded butyrate handle meets Federal Specification L-P349A, Type 3, Class MS, in red or black. Electro tinned steel lug .020" thick. Tapered slot fits all standard binding posts and terminal screws from ¼" diameter to #6 diameter. Accepts standard banana plugs in rear. Solder bridge for wire connection up to No. 18 American Wire Gauge. Rated 15 amps AC for 10°C temperature rise, continuous duty.

Stock No.	Mfr's Type	Color	EACH 1-99	100-299	300-499	500-Up
920R0250	218	Red	.14	.108	.09	.077
920R0251	218	Black	.14	.108	.09	.077

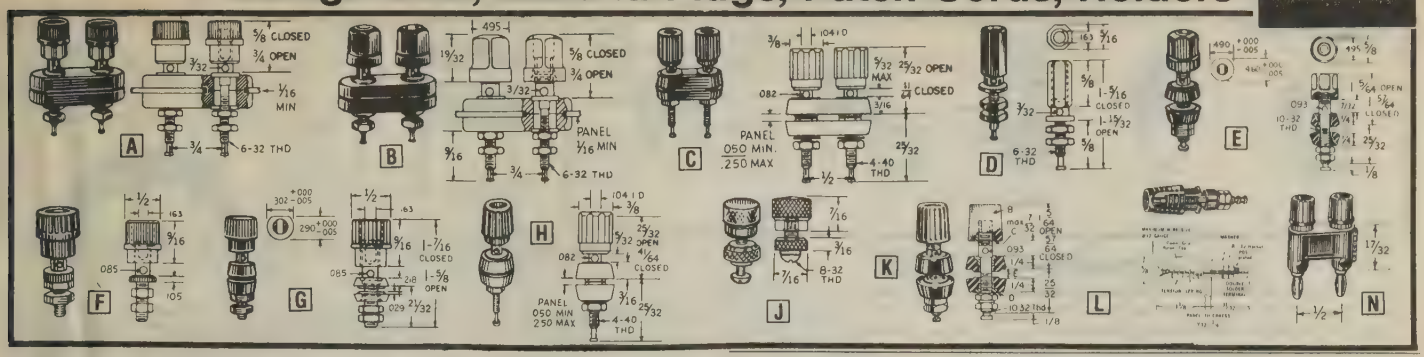
NYLON IN-LINE TIP JACK

Molded nylon handle and body meets MIL-P-20693A, in white, red, black, or green. Gold plated phosphor bronze contacts. Accepts all standard phone-tip plugs.. With recessed contact for safe connection. Ideally suited for use in patch and extension cords. Can also be used for panel mounting where wrap-around terminal connection must be insulated at rear. Rated 15 amps AC for 10°C temperature rise, continuous duty, 5 KV 60 cycle AC continuous working voltage.

Stock No.	Mfr's Type	Color	EACH 1-99	100-299	300-499	500-Up
920-9030	1513-101	White	.45	.36	.30	.25
920-9031	1513-102	Red	.45	.36	.30	.25
920-9032	1513-103	Black	.45	.36	.30	.25
920-9033	1513-104	Green	.45	.36	.30	.25

Specify Stock No., Mfr's Type and Values Wanted With Your Order

Binding Posts, Banana Plugs, Patch Cords, Holders



DUAL BINDING POSTS Types 224 and 269: Solder studs. Mount in two ½" holes in 1/16" to ¼" panels. ¾" x 1½" base. 5-way; includes 4 hex nuts and 2 flat washers. **Type 3016:** Miniature Binding Posts. Mount in two ¼" holes in up to ¼" panels. Accept miniature banana plugs. 0.080 phone tips, #6 spade lugs. Solder turret. **Type 1755:** Binding post to dual banana adapter. 5-way, Beryllium copper spring, molded nylon head, molded butyrate body. Rated 5 amps AC for 10°C rise continuous duty; 2kV 60 cycle AC. 1 oz.

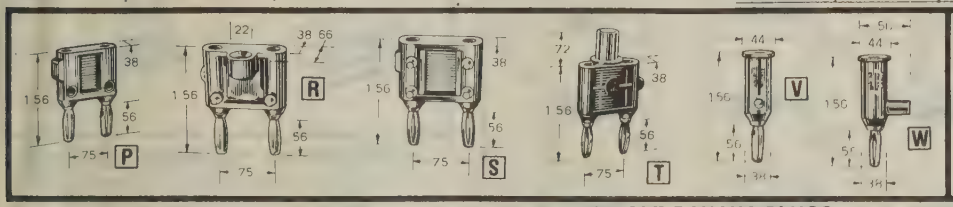
SINGLE BINDING POSTS Type 208: Accepts banana plug, has wrap-around solder stud and 6-32 thread. **Types 257, 220 and 260:** Have banana plug jack in head, also accept phone-tip plug, spade lug, alligator clip, and wire strand. **Type 257:** Takes direct solder connection to stud. **Types 257 and 260:** With locking edge. **Type 3015:** Miniature fluted binding post. Captive nylon ⅜" head. All of above single-type binding posts rated 2000 volts at 30 amps. Average wt. 2 oz. Metal parts are brass. **Type 110:** Heavy-duty binding post rated 15 amps, 60 Hz AC for 10°C temp. rise continuous duty. Nickel-plated brass, 21/32" long, 3/16" mtg. hole. With screw and lock washer. 2 oz. **Type 459:** Nylon binding post, fluted head, meets MIL-P-20693A. Rated 30 amps AC for 10°C temp. rise, continuous duty. Working voltage 2 kV at 60 Hz. Accepts phone tip plug, spade lug, banana plug, alligator clip, or wire strand. Mounts in ½" hole. 2 oz. **Type AL2000:** "Adloc" Binding Post has push-down contact/release action. Insert up to 12-gauge wire, also for spade lugs, plugs, clamps and prods. Nickel-plated brass post, nylon insulator. Rated 20 amps at 1000 volts, rms. 3½ oz.

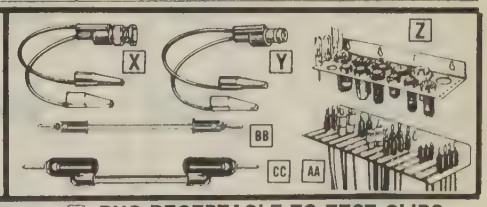
DUAL BINDING POSTS

Stock No.	Mfr's Type	Fig.	Color	EACH 1-99	100-299	300-499	500-Up
920-0267	224BB	A	Black/black	1.28	1.03	.86	.73
920-0325	269BB	B	Black/black	1.55	1.24	1.04	.89
920R0326	269RB	B	Red/black	1.55	1.24	1.04	.89
920-2817	3016RB	C	Red/black	1.55	1.24	1.04	.89
920R1865	1755	N	Red/black	3.04	2.43	2.03	1.74

SINGLE BINDING POSTS

920-0228	208	D	Metal	.88	.70	.59	.50
920-0312	257	E	Black	.88	.70	.59	.50
920-9060	257	E	Yellow	.81	.65	.54	.46
920-9061	257	E	Green	.81	.65	.54	.46
920-9062	257	E	White	.81	.65	.54	.46
920-9063	257	E	Red	.81	.65	.54	.46
920-9064	257	E	Blue	.81	.65	.54	.46
920-0256	220	F	Red	.46	.37	.31	.26
920-0257	220	F	Black	.46	.37	.31	.26
920-0315	260	G	Red	.74	.59	.50	.42
920-0316	260	G	Black	.74	.59	.50	.42
920-2814	3015	H	Red	.81	.65	.54	.46
920-2815	3015	H	Black	.81	.65	.54	.46
920-0110	110	J	Metal	.47	.38	.32	.27
920-0563	459	K	Red	.81	.65	.54	.46
920R0561	459	K	Black	.81	.65	.54	.46
721R0031	AL2000B	L	Black	1.20	.96	.80	.69
721R0032	AL2000R	L	Red	1.20	.96	.80	.69





DOUBLE BANANA PLUGS

Type 1677: Recessed top mtg. Set screws. Stacking jacks at top. 5 oz. **Type 1675:** Molded double "stack-up" plugs. Fit standard banana jacks. Thermo-plastic molded to metal body. Set screws; ground connections marked. One-piece nickel-plated beryllium copper springs. Rated 15 amps continuous, 30 amps initial. 5000 WVDC. 5 oz. **Type 1676:** With solder turrent terminals. **Type 1696:** Four-terminal isolation plug. **Type 1686:** BNC jack to plug adapter. 4 oz. **Type 1687:** BNC jack to receptacle adapter. 4 oz.

Stock No.	Mfr's Type	Fig.	Color	EACH 1-99	100-299	300-499	500-Up
920-9066	1677	P	Black	1.01	.81	.68	.58
920-9067	1677	P	Red	1.01	.81	.68	.58
920-9070	1675	R	Black	1.01	.81	.68	.58
920-9071	1675	R	Red	1.01	.81	.68	.58
920-9072	1675	R	Green	1.01	.81	.68	.58
920-9073	1675	R	Yellow	1.01	.81	.68	.58
920-9074	1675	R	Green	1.01	.81	.68	.58
920-9075	1675	R	Blue	1.01	.81	.68	.58
920-9076	1675	R	Gray	1.01	.81	.68	.58
920-9077	1675	R	White	1.01	.81	.68	.58
920-9078	1676	R	Black	1.15	.92	.77	.65
920-9080	1696	S	Red	4.39	3.51	2.93	2.49
920-9085	1686	T	Black	3.51	2.81	2.34	1.99
920-9086	1687	T	Black	4.86	3.89	3.24	2.76

AA TEST-LEAD HOLDERS

Slotted holder of cold-rolled steel, baked enamel finish. 3½ x 11". Shpg. wt. 14 oz.

Stock No.	Mfr's Type	Cable Dia. (In.)	Color	EACH 1-9	10-24	25-49	50-Up
885R0382	1508	.210	Org.	5.85	4.68	3.47	3.27
885R0631	2708	.450	Blue	5.85	4.68	3.47	3.27

SINGLE BANANA PLUGS

Type 1325: Solderless, stack-up type with internal set screw. Heavy-duty, positive connection. One-piece nickel-plated beryllium copper spring for use with standard 0.166" diameter banana jack. Rated 15 amps, continuous. 5000 WVDC. 2 oz. **Type 1825:** Safety-type solderless banana plug. Collar eliminates shock hazard. Internal set screw. Nickel-plated beryllium copper spring. .166" diameter jack plug.

Stock No.	Mfr's Type	Fig.	Color	EACH 1-99	100-299	300-499	500-Up
885R0301	1325	V	Black	1.07	.86	.54	.51
885R0302	1325	V	Red	1.07	.86	.54	.51
885-0303	1325	V	Org.	1.07	.86	.54	.51
885-0304	1325	V	Yel.	1.07	.86	.54	.51
885-0305	1325	V	Grn.	1.07	.86	.54	.51
885-0306	1325	V	Blue	1.07	.86	.54	.51
885-0307	1325	V	White	1.07	.86	.54	.51
885R0460	1825	W	Black	1.12	.90	.58	.55
885R0462	1825	W	Red	1.12	.90	.58	.55
885-0463	1825	W	Org.	1.12	.90	.58	.55
885-0464	1825	W	Yel.	1.12	.90	.58	.55
885-0465	1825	W	Grn.	1.12	.90	.58	.55
885-0466	1825	W	Blue	1.12	.90	.58	.55
885-0469	1825	W	White	1.12	.90	.58	.55

Y BNC PLUG TO TEST CLIPS

Type 2886. Molded "breakout" converts coaxial cable to test cable. Thermoplastic insulation molded to connector and wire. Two cadmium-plated steel minigator clips with black and red vinyl insulators. #20 wire 7" long, with polyvinyl insulation. 500 V peak. 2 oz.

885R0654. 1-9 .....Each 8.10 10-24 .....Each 6.48
25-49 .....Each 4.05 50-Up.....Each 3.83

X BNC RECEPTACLE TO TEST CLIPS

Type 2631. BNC receptacle UG1094/U with thermoplastic molded insulation. Two cadmium-plated steel minigator clips with black and red insulators. #20 wire. 500 V peak voltage. Wt. 3 oz.

885R0625. 1-9 .....Each 6.75 10-24 .....Each 5.40
25-49 .....Each 3.38 50-Up.....Each 3.19

STACKING PATCH CORDS

Type 1510: Hor. type. One banana plug each end. Fits standard banana jack. 18-gauge stranded wire. One-piece nickel-plated beryllium copper spring. 4 oz. **Type 1595:** Vert. type. Gold-flashed brass pin-tip. Tip jacks accept .080" dia. pin. Polyvinyl-insulated wire. Operating temp. 0°C to 105°C. Rated 5 amps continuous, 10 amps intermittent. 5000 WVDC. 5 oz.

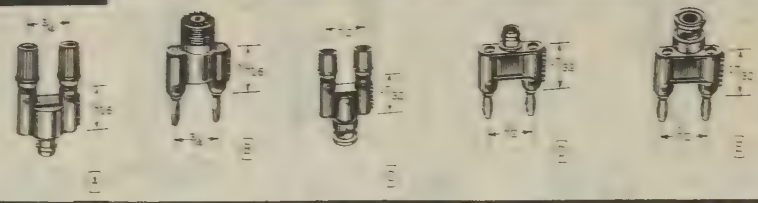
Stock No.	Mfr's Type	Fig.	Color	Lgth In.	EACH 1-9	10-24	25-49	50-Up
920-9040	1510-8	BB	Blk.	8	1.76	1.40	1.17	1.00
920-9041	1510-8	BB	Red	8	1.76	1.40	1.17	1.00
920-9042	1510-12	BB	Blk.	12	1.76	1.40	1.17	1.00
920-9043	1510-12	BB	Red	12	1.76	1.40	1.17	1.00
920-9044	1510-24	BB	Blk.	24	1.82	1.46	1.22	1.04
920-9045	1510-24	BB	Red	24	1.82	1.46	1.22	1.04
920-9046	1510-36	BB	Blk.	36	1.89	1.51	1.26	1.07
920-9047	1510-36	BB	Red	36	1.89	1.51	1.26	1.07
920-9050	1595-8	CC	Blk.	8	1.89	1.51	1.26	1.07
920-9051	1595-8	CC	Red	8	1.89	1.51	1.26	1.07
920-9052	1595-12	CC	Blk.	12	1.89	1.51	1.26	1.07
920-9053	1595-12	CC	Red	12	1.89	1.51	1.26	1.07
920-9056	1595-36	CC	Blk.	36	2.03	1.62	1.38	1.15
920-9057	1595-36	CC	Red	36	2.03	1.62	1.38	1.15

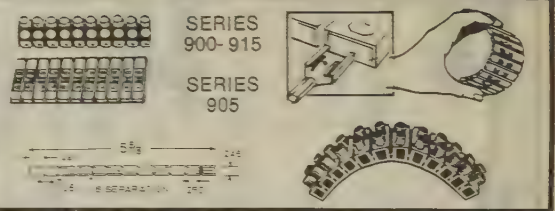
Z SOCKET-ADAPTER & TOOL HOLDER

Holds seven ⅞" and six 1 9/32" socket adapters plus 12 service tools. Steel with anti-rust baked green enamel finish. 3½ x 11". 14 oz.

885-0660. Type 2898. 1-4...Each 6.93 5-Up...Each 5.54

Adapters, Terminal Strips, Solderless Blocks





DUAL INSTRUMENT ADAPTERS

Excellent quality male-female dual binding post adapters. Insulated 5-way binding posts for efficient, reliable service in an infinite amount of applications. Come with red and black heads on ¾" centers except ½" centers. Banana jack holes are provided for side stacking. Packages of 1. Strong molded butyrate body to resist breakage or splitting that often occurs due to temperature variations. Brass conductor; beryllium copper spring. molded nylon head. Ratings: Current is 15 amps (15 amps) AC for 10°C. rise is continuous duty except where limited by coaxial connectors; voltage is 5 kV (12 kV) 60 cycle AC. Av. shpg. wt. 1 oz.

Stock No.	Mfr's Type	Fig.	Front Connection	EACH 1-9	10-24	25-99	100-Up
920-1789	1689	A	BNC female	5.21	4.97	4.14	3.55
920-1788	1688	B	BNC male	6.21	4.97	4.14	3.55
920-1790	1690	B	UHF female to banana	6.21	4.97	4.14	3.55
920-1797	1697	B	BNC female to dual banana	12.15	9.72	8.10	6.94
920R1866	1756*	C	Bind. post to BNC male	6.21	4.97	4.14	3.55
920-1867	1757*	C	Bind. post to BNC female	6.21	4.97	4.14	3.55
920R1868	1758*	D	BNC female to banana	4.05	3.24	2.70	2.31
920R1869	1759*	E	BNC male to banana	5.33	4.27	3.56	3.08

BLACK AND TRANSPARENT SOLDERLESS BLOCKS

- Sturdy Polyvinylchloride
- 12 or 24 Terminals

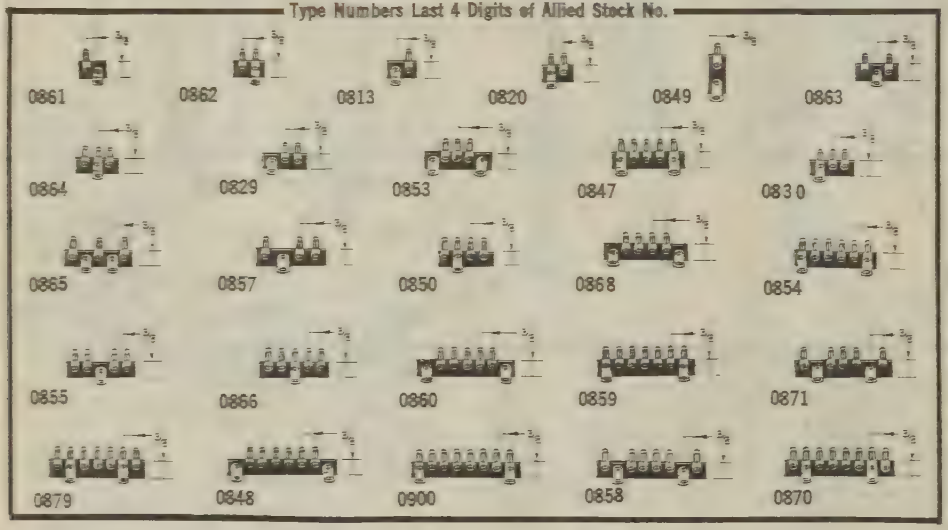
Series 900. Black polyvinylchloride terminals. Red pushbuttons lock wire. 27 amps maximum. 380 volts at 60°C maximum. Beryllium copper contacts. **Series 915** are flexible blocks for use with ¼" quick-disconnect terminals. If you need a smaller size, the series of terminals can easily be cut to fit your needs. Transparent polyvinylchloride. 20 amperes maximum, 250 volts at 80°C maximum. #12 wire maximum. (*) The last two numbers in the Type No. indicate the number of terminals. Wt. 4 oz.

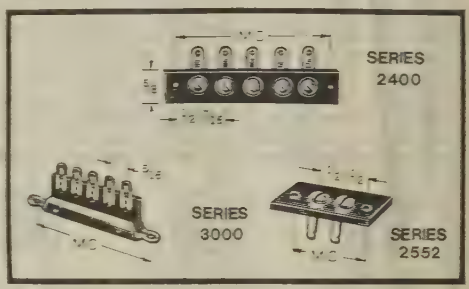
Stock No.	Mfr's Type	Description	Length	EACH 1-9	10-24	25-99	100-Up
868-1010	900-12*	Pushbutton	2 7/16 x 3/4"	1.62	1.30	1.08	.93
868-1014	900-24*	Pushbutton	4 7/8 x 3/4"	3.00	2.40	2.00	1.74
868-1027	915-12*	Flexible	2 13/16 x 1 1/8"	.89	.71	.59	.51
868-1031	915-24*	Flexible	5 5/8 x 1 1/8"	1.67	1.33	1.11	.95

Series 905. Solderless block. Bends in any direction. Series of terminals can be cut to fit your needs. Flexible polyester. 30 A max. 380 V at 60°C maximum. Each 1/2 x 3/8 x 3 3/4" with 11/32" spacing between terminal centers. #10 wire maximum. Ship. wt. 4 oz.

868R1020. 1-9 ..... Each 1.98 10-24 ..... Each 1.58
25-99 ..... Each 1.32 100-Up ..... Each 1.13

Type Numbers Last 4 Digits of Allied Stock No.





SCREW-TYPE TERMINAL STRIPS

For multiple outputs. Bakelite strips are 1/16" thick except 3/32" thick. Solder-coated brass terminals are on 7/16" centers with 9/64" mounting holes. For a variety of connecting applications. Av. shpg. wt. 1 oz.

Stock No.	Mfr's Type	Term.	Mtg. Ctrs.	EACH 1-49	50-99	100-499	500-Up
868-0875	2405	5	2 5/8"	.35	.28	.23	.25
868-0876	2406	6	3 1/16"	.43	.34	.28	.24
868-0930	2410	10	4 7/8"	.70	.56	.47	.40

LUG-TYPE TERMINAL STRIPS

- 26 Types to Choose From
- Solder-Coated Steel Lugs for Fast Soldering
- Bakelite Strips Provide Dependable Insulation
- Highest Quality Materials and Workmanship

Quality lug-type terminal strips, dark brown bakelite, 1/16" thick x 3/8" wide. Equipped with solder-coated steel lugs with 3/8" centers, 9/64" diameter mounting holes. Shipping weight 1 oz. Buy larger quantities and save!

Stock No.	Mfr's Type		EACH 1-99	100-499	500-999	1000-Up
868-0830	211	52C	.05	.043	.037	.031
868-0853	3113	53	.09	.07	.059	.050
868-0847	21112	53A	.10	.08	.067	.057
868-0865	13131	53B	.09	.07	.061	.052
868-0857	1311	53E	.06	.048	.041	.035
868-0850	1211	53F	.07	.052	.043	.037
868-0868	311113	54	.10	.08	.068	.058
868R0854	211112	54A	.10	.083	.069	.059
868R0855	11311	54B	.08	.06	.05	.04
868-0861	13	51	.04	.033	.028	.024
868-0862	12	51A	.04	.034	.029	.024
868-0813	31	51B	.04	.033	.028	.024
868-0820	21	51C	.04	.034	.029	.024

Stock No.	Mfr's Types		EACH 1-99	100-499	500-999	1000-Up
868-0849	AD	51F	.06	.044	.037	.031
868R0863	131	52	.05	.041	.035	.029
868R0864	121	52A	.05	.044	.037	.031
868-0829	311	52B	.05	.041	.035	.029
868R0866	11211	54C	.08	.06	.05	.043
868-0860	3111113	55	.12	.095	.079	.067
868-0859	2111112	55A	.12	.099	.082	.07
868-0871	1311131	55B	.12	.095	.079	.067
868-0879	1211121	55C	.11	.09	.076	.064
868-0848	31111113	56	.13	.10	.086	.073
868-0900	21111112	56A	.14	.11	.09	.077
868-0858	13111131	56B	.13	.10	.086	.073
868R0870	12111121	56C	.14	.11	.091	.077

SERIES 3000 TERMINAL STRIPS

Steel terminals with cadmium plating for easy soldering. Spaced on 5/16" centers. Insulated strip of rugged, molded bakelite. Cadmium-plated steel mounting base. Mounting holes at each end of base for No. 6 screws. 1 oz.

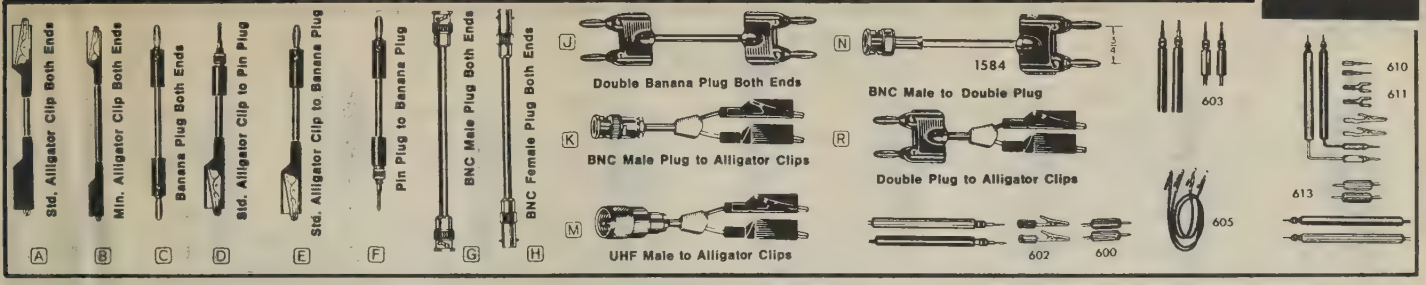
Stock No.	Mfr's Type	Term.	Mtg. Ctrs.	EACH 1-99	100-999	1000-2499	2500-Up
920-2802	3002	2	1"	.14	.11	.09	.08
920-2803	3003	3	1 5/16"	.18	.14	.12	.10
920-2804	3004	4	1 5/8"	.21	.17	.14	.118
920-2805	3005	5	1 15/16"	.23	.18	.15	.13
920R2806	3006	6	2 1/4"	.25	.20	.17	.14
920-2807	3007	7	2 9/16"	.26	.21	.18	.15
920-2808	3008	8	2 7/8"	.30	.24	.20	.17
920-2809	3009	9	3 3/16"	.32	.26	.22	.18
920R2810	3010	10	3 1/2"	.36	.29	.24	.20
920-2812	3012	12	4 1/8"	.41	.32	.27	.23
920-2813	3013	13	4 3/8"	.43	.35	.29	.25

TERMINAL STRIP

Carefully constructed of black 3/32" bakelite. Screw-type terminals are cadmium plated with tinned lugs. Use for many connecting applications. Average shpg. weight 4 oz.

Stock No.	Mfr's Type	Term.	Mtg. Ctrs.	EACH 1-24	25-99	100-499	500-Up
868-0902	2552	2	1 1/2"	.15	.12	.10	.09

Jumpers, Patch Cords, Test Leads, Prods



No. 20 rubber-covered wire 50″ long (unless otherwise stated), 5000 V test. Handles, plugs: molded butyrate per MIL-L-P349A. Type 3, Class MS; fiber per MIL-F-1148A. Grade CH; molded thermosetting plastic per MIL-P-14CFG.

UNSHIELDED JUMPERS

Stock No.	Mfr's Type	Ft.	Color	Fig.	EACH 1-9	10-24	25-99	100-Up
920R1683	1596-12-102	1	Red	A	.86	.68	.57	.49
920R1684	1596-12-103	1	Black	A	.86	.68	.57	.49
920R1685	1596-36-102	3	Red	A	.90	.72	.60	.51
920R1686	1596-36-103	3	Black	A	.90	.72	.60	.51
920R1687	1596-60-102	5	Red	A	.97	.77	.65	.55
920R1690	1596-60-103	5	Black	A	.97	.77	.65	.55
920R1688	1597-12-102	1	Red	B	.86	.68	.57	.49
920R1689	1597-12-103	1	Black	B	.86	.68	.57	.49
920R1691	1597-36-102	3	Red	B	.90	.72	.60	.51
920R1692	1597-36-103	3	Black	B	.90	.72	.60	.51
920-1693	1597-60-102	5	Red	B	.97	.77	.65	.55
920-1694	1597-60-103	5	Black	B	.97	.77	.65	.55
920-1950	1860-12-102	1	Red	C	1.03	.90	.75	.64
920-1951	1860-12-103	1	Black	C	1.03	.90	.75	.64
920R1953	1860-36-102	3	Red	C	1.20	.96	.80	.69
920R1954	1860-36-103	3	Black	C	1.20	.96	.80	.69
920-1960	1865-36-102	3	Red	D	1.35	1.08	.90	.77
920R1966	1866-36-102	3	Red	E	1.42	1.13	.95	.81
920R1967	1866-36-103	3	Black	E	1.42	1.13	.95	.81
920R1968	1866-60-102	5	Red	E	1.49	1.19	.99	.85
920R1969	1866-60-103	5	Black	E	1.49	1.19	.99	.85
920-1970	1336-36-103	3	Black	F	1.78	1.42	1.19	1.01

COAXIAL CABLE SHIELDED STANDARD PATCH CORDS

Stock No.	Mfr's Type	Ft.	Color	Fig.	EACH 1-9	10-24	25-99	100-Up
920-1650	1589-12	1	Black	G	7.22	5.18	4.82	4.13
920R1652	1589-36	3	Black	G	7.49	5.99	5.00	4.28
920R1654	1589-60	5	Black	G	7.76	6.21	5.18	4.44
920-1672	1869-36	3	Black	H	8.15	6.68	5.67	4.86
920-1674	1869-60	5	Black	H	8.78	7.02	5.85	5.10
920-1610	1580-12	1	Black	J	5.87	4.70	3.92	3.36
920-1613	1580-36	3	Black	J	6.14	4.91	4.10	3.51
920-1615	1580-60	5	Black	J	6.41	5.13	4.28	3.66
920-1586	1791-12	1	Black	K	7.22	5.78	4.82	4.13
920R1588	1791-36	3	Black	K	7.49	5.99	5.00	4.28
920R1590	1791-60‡	5	Black	K	7.76	6.21	5.18	4.44
920-1980	1790-36‡	3	Black	M	7.49	5.99	5.00	4.28
920-1982	1790-60‡	5	Black	M	7.76	6.21	5.18	4.44
920-1987	1584-36‡	3	Black	N	8.15	6.80	5.67	4.86
920-1988	1584-60‡	5	Black	N	8.78	7.02	5.85	5.01
920-1564	1531-36§	3	Gray	R	7.49	5.99	5.00	4.28
920-1568	1531-60	5	Gray	R	7.76	6.21	5.18	4.44

Type 613 Phone Tips. Prods, 4″ L. ⅜″ O.D. Butyrate handle, nickel-plated brass body, nickel-plated steel needle. **Per Pair.**
920-0613. 1-11 ..... Each 1.69 12-Up ..... Each 1.35
Type 618 Retractile Solderless Test Leads. 12″-6′ coil. Nickel-plated brass tips. Butyrate handle. 4000 V; nom. O.O. .165″. **Per Pair.**
920R0618. 1-11 ..... Each 4.93 12-Up ..... Each 3.94

Solderless Tip Test Leads. Prods are 4″ long with ⅜″ O.D. Have molded butyrate handle and nickel-plated brass tip. **Pair.**

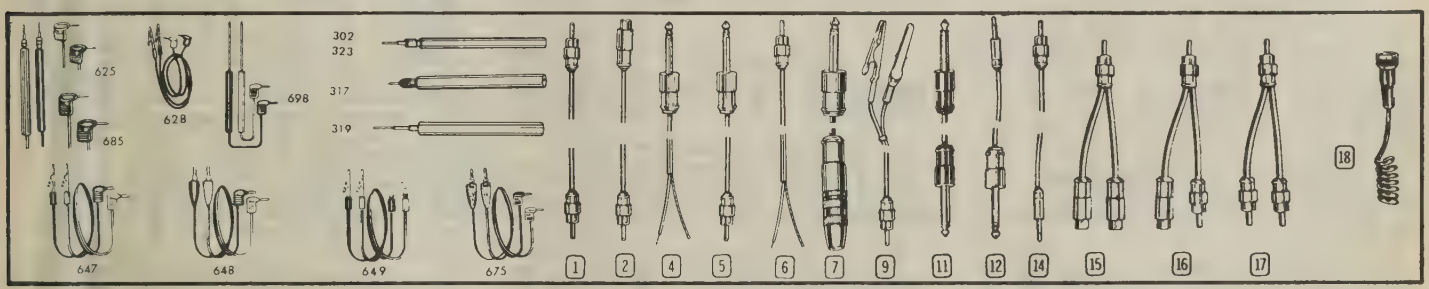
Stock No.	Mfr's Type	Meter End	Per Pair 1-11	12-Up
920-0600	600	phone tips	1.69	1.35
920-0602	602	alligator clips	1.76	1.40

Type 603 All Solderless Test Leads. 4″ prod has ⅜″ O.D. butyrate handle. Thermo-setting plug. Nickel/brass tip. **Per Pair.**
920-0603. 1-11 ..... Each 2.16 12-Up ..... Each 1.73
Alligator Clip Test Leads. Cadmium-plated steel clips. *Have vinyl plastic boots. Types 716, 717 have midget clips. **Per Pair.**

Stock No.	Mfr's Type	Length Inches	Per Pair 1-11	12-Up
920R0605	605	24	1.42	1.13
920R0629	629*	12	1.49	1.19
920-0657	657*	24	1.55	1.24
920-0716	716*	12	1.49	1.19
920-0717	717*	18	1.55	1.24

Test Lead Kits. 4″ handles have banana plugs at one end. 610 has solderless phone tip; 611 has needle tip. With 2 phone tips. 2 alligator clips. 2 spade lugs.

Stock No.	Mfr's Type	Per Pair 1-11	12-Up
920-0610	610	3.38	2.70
920R0611	611	3.38	2.70



Stock No.	Mfr's Type	Meter End	Per Pair 1-11	12-Up
920R0625	625	phone tip	2.43	1.94
920R0685	685	banana tip	2.77	2.21

Meter Test Leads With Needle Prods. Same as meter test leads above, but with nickel-plated steel needle prods. **Per Pair.**

920-0626	626	phone tip	2.43	1.94
920R0686	686	banana tip	2.77	2.21

Alligator Clip Test Leads. Cadmium-plated steel alligator clips have molded butyrate handles. Molded thermosetting plastic elbows* and meter plugs. **Per Pair.**

920-0628	628*	tip plugs	2.03	1.62
920R0647	647*	banana plugs	2.16	1.73
920-0649	649	spade lugs	1.76	1.40
920R0648	648†	banana plugs	2.16	1.73
920-0675	675†	tip plugs	2.03	1.62

698 "Slim Jim" Test Leads. 4″ butyrate prod, ⅜″ O.D.; 3½″ cadmium/steel tip, vinyl tube. Phone tips. **Per Pair.**
920-0698. 1-11 ..... Each 2.36 12-Up ..... Each 1.89

302 Solderless Prod. Threaded, 4″ plastic handle, ⅜″ dia. Nickel-plated phone tip. **920R0402. Red.; 920R0403. Blk.** 6 oz.
1-24 ..... Each .41 25-49 ..... Each .36
50-99 ..... Each .30 100-Up ..... Each .25

323 Solderless Prod. Bone fiber handle, nickel-plated brass tip. .245 I.D. 5/32″ L. **920-0427. Red.; 920-0428. Black.** 8 oz.
1-24 ..... Each .53 25-49 ..... Each .42
50-99 ..... Each .35 100-Up ..... Each .30

317 Replaceable Steel Phono Needle Prod. Brass/nickel body. Handle 4 13/16″. **920R0420. Red.; 920R0421. Black.** 4 oz.
1-24 ..... Each .49 25-49 ..... Each .39
50-99 ..... Each .32 100-Up ..... Each .28

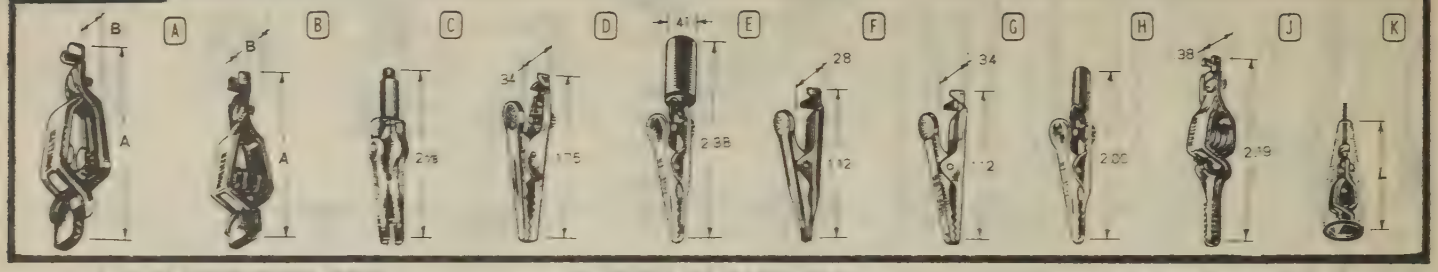
319 Heavy-Duty Prod. Threaded. Brass, nickel-plated tip. Plastic handle. 5 3/16″ L. **920R0424. Red.; 920R0423. Black.** 8 oz.
1-24 ..... Each .41 25-49 ..... Each .36
50-99 ..... Each .30 100-Up ..... Each .25

FINE QUALITY AUDIO CONNECTORS

Wide assortment of audio connectors covering virtually every application in industry, commercial or stereo use. Constructed of high-strength, lightweight plastic for long-life, noise-free operation. †stripped, tinned, ready for soldering—need not remove insulation. ‡coiled cord jacket. Av. shpg. wt. 8 oz.

Stock No.	Manufacturer's Equivalent Types		Description	Fig.	Ft.	EACH 1-11	12-49	50-499	500-Up
910-9000	42-2365	.....	Phono Pin Plugs	1	1½	.99	.92	.87	.74
910-9001	42-2366	.....	Phono Pin Plugs	1	3	1.09	1.01	.96	.88
910-9002	42-2367	.....	Phono Pin Plugs	1	6	1.59	1.47	1.40	1.19
910-9005	42-2368	.....	Phono Pin Plugs	1	12	2.39	2.22	2.10	1.79
910-9006	42-2361	.....	Phono Pin/Plug Jack	2	3	1.59	1.47	1.40	1.19
910-9007	42-2362	.....	Phono Pin/Plug Jack	2	6	1.59	1.47	1.40	1.19
910-9010	42-2363	.....	Phono Pin/Plug Jack	2	12	2.39	2.22	2.10	1.79
910-9012	42-2370	.....	Phono Pin Plug/Tinned†	4	3	.99	.92	.87	.74
910-9013	42-2371	.....	Phono Pin Plug/Tinned†	4	6	1.29	1.20	1.14	.97
910-9014	42-2372	.....	Phono Pin Plug/Tinned†	4	12	1.69	1.57	1.49	1.27
932-0322	30-444S	05AK25	Phono Plug/Pin Plug	5	6	2.60	1.58	1.45	1.10
932-0326	30-4505	05AK84	Phono Plug/Tinned†	6	6	2.35	1.43	1.30	.99
932-0324	30-448X	05AK80	Phono Plug/Jack	7	6	3.48	2.12	1.93	1.46
910-9024	42-2421	.....	Mini Phono Plug Alligator Clips	9	10	1.69	1.57	1.49	1.27
910-9026	42-2420	.....	Mini Phono Plug/Plug	..	6	1.59	1.47	1.40	1.19
910-9030	42-2359	.....	Pin Plug/Clips	9	12	2.29	2.13	2.02	1.72
910-9033	42-2381	.....	Phono Plugs	11	6	2.49	2.32	2.19	1.88
932-0765	.....	40DF05	Phono Plug to Mini Pl.	12	3	3.10	1.90	1.73	1.31
932-0774	.....	40DK05	Phono Plug to Mini Pl.	12	6	3.70	2.26	2.05	1.56
910-9037	42-2444	.....	Mini Plug to Phono Pin	14	6	1.44	1.34	1.27	1.08
910-9040	42-2436	.....	Adp. (Pin Pl./Jks.)	15	4″	1.89	1.76	1.66	1.42
932-0775	30-512S	330-F2Y	Adp. (Pin Jks./Pls.)	16	4″	2.70	1.65	1.50	1.14
910-9041	42-2438	.....	Adp. (Pin Pls.)	17	4″	1.89	1.76	1.66	1.42
910-9054	42-2357	.....	Mike Connector‡	18	6	2.29	2.13	2.02	1.72
910-9050	42-2471	.....	3 Cond. Phone Jack to 2 Phono Plugs	..	3	3.29	3.06	2.89	2.47
910-9055	42-2473	.....	Guitar Cord; Phone Pls.	..	15	6.99	6.50	6.15	5.24

General-Purpose Test Clips, Terminals, Staking Kit



3-SIDED MESH-TEETH CLIPS

A §Cadmium-plated steel; *solid copper; †with insulation-piercing needle. ⊏Wt. per 100 pieces. Dim: A see listing; B, .38".

Stock No.	Mfr's. Type	Amps	Size A	#Wt. Lbs.	EACH 1-99	100-499	500-Up
860R0036	§26	40	3"	5	.37	.29	.24
860R0044	§6T	20	2⅜"	3¼	.26	.20	.16
860R0046	*27C	40	2¾"	3¾	.46	.34	.27
860R0097	§46B	10	2"	2	.22	.17	.14
860R0099	*46C	20	2"	2¼	.32	.24	.19
860-0105	*60C	20	2¼"	2½	.53	.43	.36
860-0107	*61C	20	2½"	2¾	.39	.31	.26

"PEE-WEE" TEST CLIPS

B Mesh-teeth type for general purpose use. Type 45C, solid copper. Type 45, cadmium-plated steel. Dim: A see listing; B, .38".

860R0085	45	5	1¼"	1	.14	.10	.09
860R0087	45C	10	1½"	1¼	.26	.20	.16

HEAVY-DUTY SOLID COPPER CLIPS

B High-conductivity solid copper clips. Handle current loads up to 200 amps. Lbs./100 pcs.: *63¼, †18, §41.

Stock No.	Mfr's. Type	Amps	Marking	Size A	EACH 1-99	100-499	500-Up
860R0038	*26C	70	unmarked	3"	.75	.60	.50
860-0025	*21C	100	plus sign	4½"	2.06	1.65	1.38
860-0026	*21C	100	unmarked	4½"	2.06	1.65	1.38
860-0009	§11C	200	unmarked	5"	4.21	3.37	2.81

LEAD-PLATED BATTERY CLIPS

B For moderately heavy current leads. Incl. battery charging, electroplating, light welding. Lead-plated steel for protection and long life. Wt./100 pcs., *8¼, †15.

860-0032	*24A	25	plus sign	2½"	.47	.38	.32
860-0034	*24A	25	unmarked	2½"	.47	.38	.32
860-0021	†21A	50	plus sign	4"	.85	.68	.54
860-0023	†21A	50	unmarked	4"	.85	.68	.54

INSULATED ALLIGATOR CLIPS

C §Cadmium-plated steel; *solid copper. Insulated with vinyl to protect against shocks & shorts. Wt./100 pcs., 1¾ lbs.

Stock No.	Mfr's. Type	Amps	Marking	Size	EACH 1-99	100-499	500-Up
860R0139	§61	5	Red insul.	2½"	.30	.23	.18
860R0137	§61	5	Blk. insul.	2½"	.30	.23	.18
860R0143	*60C	10	Red insul.	2½"	.36	.27	.21
860R0141	*60C	10	Blk. insul.	2½"	.36	.27	.21

70 SERIES ALLIGATOR CLIPS

D No. 70, cadmium-plated steel, solder connection; No. 70S, cadmium-plated steel, screw connections. No. 70CS, solid copper, screw connection. 1 lb. per 100.

Stock No.	Mfr's. Type	Amps	Barrel Color	Size	EACH 1-99	100-499	500-Up
860R0150	70	5	.....	1"/16"	.11	.08	.07
860R0154	70S	5	.....	1"/16"	.13	.10	.08
860R0152	70CS	10	.....	1"/16"	.22	.17	.14

INSULATED-BARREL ALLIGATOR CLIPS

E Made of cadmium-plated steel, except Types 60CHS are solid copper. Jaws open ⅝". 1½ lbs. per 100 pcs.

860R0123	60HS	.....	Red	2"/16"	.22	.16	.13
860R0121	60HS	.....	Black	2"/16"	.22	.16	.13
860R0117	60CHS	.....	Red	2"/16"	.30	.23	.18
860R0115	60CHS	.....	Black	2"/16"	.30	.23	.18

"MICRO-GATOR" CLIPS

F Similar to "Mini-gators" but with tiny tip for clipping to small terminals, and as heat sink. §Cadmium-plated steel; *copper.

860R0062	§34	.....	.....	1"/16"	.09	.07	.06
860R0064	*34C	.....	.....	1"/16"	.12	.09	.08

"MINI-GATOR" CLIPS

G Ideal for testing all types of miniature and subminiature equipment. ¾" jaw opening. 1/16" I.D. tip when used with insulator. Type 30, cadmium-plated steel; Type 30C, solid copper, for ⊏20 or smaller wire. Shpg. wt., ¼ lb. per 100.

Stock No.	Mfr's. Type	Amps	Size	EACH 1-99	100-499	500-Up
860R0052	30	5	1"/16"	.11	.08	.07
860R0054	30C	10	1"/16"	.13	.10	.08

60 SERIES ALLIGATOR CLIPS

H Steel except 60CS, solid copper. *Insulation-piercing needle. Fit banana plugs. Jaws open ⅝". 2" long. 60PP2 has barrel crimped for friction fit on std. phone tip banana plug. Test prod tip. 1 lb. per 100.

Stock No.	Mfr's. Type	Description	EACH 1-99	100-499	500-Up
860R0113	60	Solder	.14	.10	.09
860R0129	60S	Screw	.16	.12	.10
860R0119	60CS	Screw	.25	.19	.15
860-0126	*60NS	Screw	.33	.26	.22
860R0127	60PP2	Crimp	.20	.15	.13

CROCODILE CLIPS

J Cadmium-plated steel except Type 85C is solid copper. Wt. 1½ lbs. per 100.

Stock No.	Mfr's. Type	Description	EACH 1-99	100-499	500-Up
860R0167	85	2⅛" Screw Conn.	.16	.12	.10
860R0169	85C	2⅛" Screw Conn.	.32	.24	.20

SLIP-ON INSULATORS FOR CLIPS

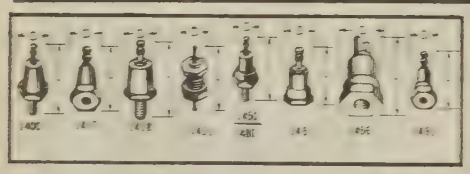
K Tough, flexible vinyl insulators for above clips. Offer high dielectric strength; resistant to oils and grease. Cover entire clip except for end of nose. Av. wt. 1 oz.

Stock No.	Mfr's Type	Color	With Series	EACH 1-99	100-499	500-Up
860-0015	13	Red	11	1.48	1.19	.99
860-0013	13	Black	11	1.48	1.19	.99
860-0030	23	Red	21	.75	.60	.50
860-0028	23	Black	21	.75	.60	.50
860R0042	26	Red	24, 25	.52	.42	.35
860R0040	26	Black	24, 25	.52	.42	.35
860R0050	29	Red	27	.30	.23	.18
860R0048	29	Black	27	.30	.23	.18
860R0058	32	Red	30	.06	.05	.04
860R0056	32	Black	30	.06	.05	.04
860R0070	36	Red	34	.06	.05	.04
860R0068	36	Black	34	.06	.05	.04
860R0095	47	Red	45	.10	.08	.068
860R0093	47	Black	45	.10	.08	.068
860R0103	49	Red	48, 50	.21	.16	.13
860R0101	49	Black	48, 50	.21	.16	.13
860R0135	92	Red	90, 70	.09	.07	.06
860R0133	92	Black	90, 70	.09	.07	.06
860R0160	72	Red	70	.08	.06	.05
860R0158	72	Black	70	.08	.06	.05
860R0177	87	Red	85	.11	.08	.07
860R0175	87	Black	85	.11	.08	.07

"HIPPO" & "PIGMY HIPPO" CLIPS

Strong full-channel-constructed plier clips with two vinyl insulating sleeves. Full-size handles. **Type 41A** standard "Hippos": 6" long, 1⅝" jaw opening. **Type 46A** "Pigmy-Hippos": 3" long, 1⅛" jaw opening. Wt. per 100, §41 lbs.; †5¾ lbs.

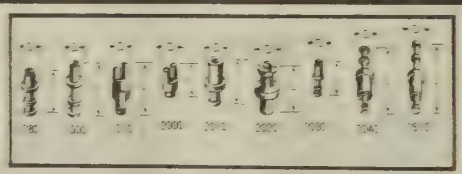
Stock No.	Mfr's Type	Amps	Sleeve Color	Marking	EACH 1-99	100-499	500-Up
860R0077	41A*	100	Black	minus sign	1.30	1.04	.87
860R0079	41A*	100	Red	plus sign	1.30	1.04	.87
860R0089	46A†	50	Black	unmarked	.35	.28	.24
860R0091	46A†	50	Red	unmarked	.35	.28	.24



INSULATED TERMINALS

Shank-common types except 140F feed-thru. Turret pin-projected terminals. Base connect are plug female sweep. Breakdown voltages 1500-10,000V AC. Brass with 000015" gold plate over 00005" silver plate. Cadmium-plated steel bases. Brass per QQ-B-626 alloy 22, ½ hard. S = thread or shank plain, ⅛" shank length. ins. P = phenolic MIL-P-14020 Cl. 2. A = Alkyd MIL-M-14E Ty. Mag. T = Teflon AMS-3651B. H = melamine per 1-10 L-P4. Wt. per pkg. 25 2 oz.

Stock No.	Mfr's Type	S	X Inches	Ins.	PER PKG. 25 1-9	10-24	25-Up
971-0408	140QB	6-32	.250	P	10.00	8.00	6.66
971-0406	140B	6-32		A	8.25	6.60	5.51
971-0416	140BB	6-32	.250	A	11.19	8.95	7.47
971-0420	140	6-32		T	16.81	13.45	11.23
971-0424	140B	6-32	.250	T	11.69	9.35	7.81
971-0426	140BM	4-40	.375	T	11.69	9.35	7.81
971-0427	140F	6-32		T	11.19	8.95	7.47
971-0428	140G	6-32		T	13.13	10.50	8.77
971-0430	140GA	4-40		T	13.13	10.50	8.77
971-0436	140GB	4-40	.218	H	11.19	8.95	7.47
971-0445	140FA	2-56		T	11.50	9.20	7.68



STANDARD TERMINALS

Include hollow lug, bifurcated, turret, feed-through types. Terminals per QQ-B-626, composition 22, ½ hard. Silver-plated per QQ-S-365 Type II1. Tarnish-resistant coatings of dichromate, water-dip lacquer, waxes. Packed in vapor-resistant cellothene plastic. Wt. per pkg/100, 2 oz.

Stock No.	Mfr's Type	Shank Dia Inches	Shank Lgth. Inches	PER PKG./100 1-9	10-24	25-Up
971-0316	1280B	.091	.156	4.65	3.72	3.11
971-0317	1280C	.091	.156	4.65	3.72	3.11
971-0338	1300D	.114	.165	7.64	6.11	5.10
971-0356	1310B	.114	.165	7.75	6.21	5.18
971-0358	1310C	.114	.165	7.75	6.21	5.18
971-0488	2000B	.063	.084	6.83	5.46	4.56
971-0489	2000C	.063	.115	6.83	5.46	4.56
971-0491	2010B	.063	.084	5.07	4.06	3.39
971-0492	2010C	.063	.115	5.07	4.06	3.39
971-0494	2020B	.063	.084	6.13	4.90	4.09
971-0496	2030B	.062	.084	3.53	2.83	2.36
971-0499	2040D	.126	.165	13.85	11.08	9.25
971-0509	2510B	.073	.084	7.75	6.22	5.20

"IMPACT" STAKING KIT
Assemble Term Boards, Printed Circuits

Model 1707. Produces light or heavy blow. Uniform striking action. Automatic one-hand operation. Stakes all dia. 50 3/32" max. Kit includes: anvil holder; impact handle; plus 11 interchangeable tools. With instructions. Wt. 1 lb.

839-3433. 1-4 ..... Each 23.38
5-Up ..... Each 19.88

SCORED TURRET TERMINAL BOARDS

Brass terminals ½ hard; hot dip solder finish. 5 sections, each 2⅝" long, with .120" dia. holes. PBE = paper base electrical board, for temp. up to 250°F. GEE = G-10 Glass Epoxy boards for 300°F, max. 3/32" thick with double row of terminals (50 total) on 2⅝" centers except Type 15031 with single row of 25 terminals. Wt. 3 oz.

Stock No.	Mfr's Type	Width Inches	Spacing Between Rows Inches	Material	EACH 1-9	10-24	25-Up
839-3450	15031	½	.....	PBE	2.38	1.90	1.59
839-3455	15036	1½	1¾	PBE	5.75	4.60	3.84
839-3468	15236	1½	1¾	GEE	8.00	6.40	5.34
839-3452	15033	2	1½	PBE	5.88	4.70	3.92
839-3465	15233	2	1½	GEE	9.23	7.38	6.16

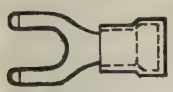
Alec Electron Says – He Who Buys from Allied Saves Many Headaches

Solderless Terminals and Crimping Tool

TONGUE STYLE TERMINALS
INSULATED AND NON-INSULATED

R RING

S SPADE


SF FLANGED SPADE

BSF FLANGED BLOCK SPADE

H HOOK

Choose from Ring, Spade, Flanged Spade, Flanged Block Spade, and Hook Tongue style insulated or non-insulated terminals. All are constructed of electrolytic copper and are tin-plated for maximum conductivity and corrosion resistance. Sturdy, fast connect, disconnect. Resist loosening effect of vibration. NEMA color-coded, vinyl and nylon. Provides excellent electrical connections with high mechanical characteristics.

NON-INSULATED TERMINALS — SOLD IN PACKAGES OF 100 — **INSULATED TERMINALS**

Wire Size	Stud Size	Length Inches	Type	Stock No.	Mfr's Type	PRICE PER PKG. 1-9	10-49	50-99	100-Up	Stock No.	Mfr's Type	PRICE PER PKG. 1-9	10-49	50-99	100-Up
22-18	4	.812	Ring	975-5404	R1A-4S	2.14	1.65	1.37	1.14	975-6704	R4A-4S	5.98	4.60	3.83	3.19
22-18	5-6	.609	Ring	975-5405	R1A-6S	2.14	1.65	1.37	1.14	975R6705	R4A-6S	5.98	4.60	3.83	3.19
22-18	5-6	.688	Ring	975R5406	R1A-6	2.14	1.65	1.37	1.14	975R6706	R4A-6	5.98	4.60	3.83	3.19
22-18	8	.688	Ring	975-5408	R1A-8	2.14	1.65	1.37	1.14	975R6708	R4A-8	5.98	4.60	3.83	3.19
22-18	10	.688	Ring	975R5410	R1A-10	2.14	1.65	1.37	1.14	975R6710	R4A-10	5.98	4.60	3.83	3.19
16-14	5-6	.609	Ring	975-5425	R1B-6	2.14	1.65	1.37	1.14	975-6735	R4B-6S	5.98	4.60	3.83	3.19
16-14	5-6	.688	Ring	975-5426	R1B-6	2.14	1.65	1.37	1.14	975-6736	R4B-6	5.98	4.60	3.83	3.19
16-14	8	.688	Ring	975R5428	R1B-8	2.14	1.65	1.37	1.14	975-6738	R4B-8	5.98	4.60	3.83	3.19
16-14	10	.688	Ring	975R5430	R1B-10	2.14	1.65	1.37	1.14	975R6740	R4B-10	5.98	4.60	3.83	3.19
12-10	10	.734	Ring	975R5440	R1C-10	3.66	2.82	2.35	1.96						
12-10	12¼	1.000	Ring	975-5444	R1C-14	5.06	3.89	3.24	2.70						
22-18	4	.531	Spade	975-5604	BS1A-4	2.14	1.65	1.37	1.14	975-7104	BS4A-4	5.98	4.60	3.83	3.19
22-18	5-6	.656	Spade	975R5606	BS1A-6	2.14	1.65	1.37	1.14	975R7106	BS4A-6	5.98	4.60	3.83	3.19
22-18	8	.656	Spade	975R5608	BS1A-8	2.14	1.65	1.37	1.14	975R7108	BS4A-8	5.98	4.60	3.83	3.19
22-18	10	.656	Spade	975R5610	BS1A-10	2.14	1.65	1.37	1.14	975R7110	BS4A-10	5.98	4.60	3.83	3.19
16-14	4-6	.656	Spade	975R5636	BS1B-6	2.14	1.65	1.37	1.14	975R7136	BS4B-6	5.98	4.60	3.83	3.19
16-14	8	.656	Spade	975R5638	BS1B-8	2.14	1.65	1.37	1.14	975R7138	BS4B-8	5.98	4.60	3.83	3.19
16-14	10	.656	Spade	975R5640	BS1B-10	2.14	1.65	1.37	1.14	975R7140	BS4B-10	5.98	4.60	3.83	3.19
22-18	4-6	.656	Spade w/flange	975-5706	BSF1A-6	2.14	1.65	1.37	1.14	975R7206	BSF-4A-6	5.98	4.60	3.83	3.19
22-18	8	.688	Hook	975-5808	H1A-8	2.14	1.65	1.37	1.14	975-7258	H4A-8	5.98	4.60	3.83	3.19
16-14	4-6	.688	Hook	975-5830	H1B-6	2.14	1.65	1.37	1.14						
16-14	8									975-7308	H4B-8	5.98	4.60	3.83	3.19
22-18	.....	.938	Butt	975-6002	B1A	2.47	1.90	1.59	1.32	975R7502	B4A	4.49	3.46	2.88	2.40
16-14	.....	.938	Butt	975-6032	B1B	2.47	1.90	1.59	1.32	975R7532	B4B	4.49	3.46	2.88	2.40

NON-INSULATED TERMINALS — SOLD IN PACKAGES OF 100 — **INSULATED TERMINALS**

Wire Size	Stud Size	Length Inches	Type	Stock No.	Mfr's Type	PRICE PER PKG. 1-9	10-49	50-99	100-Up	Stock No.	Mfr's Type	PRICE PER PKG. 1-9	10-49	50-99	100-Up
22-18	.....	.641	Male	975-6101	M1TA-187	2.36	1.82	1.51	1.26						
22-18	.....	.703	Male	975-6102	M1TA-250	2.36	1.82	1.51	1.26						
22-18	.....	.500	Fem	975R6104	FR1A-187	2.36	1.82	1.51	1.26						
18-14	.....	.703	Male	975R6131	M1T-250	2.36	1.82	1.51	1.26	975-7601	M4T-250	6.24	4.80	4.00	3.34
18-14	.....	.641	Fem	975R6132	FR1B-250	2.36	1.82	1.51	1.26	975R7602	FR4B-250	6.24	4.80	4.00	3.34
18-14	.....	500	Angle	975R6134	FLFR1B-250	2.58	1.99	1.66	1.38						
18-14	.....	.594	Snap	975-6201	SC1B	2.36	1.82	1.51	1.26						

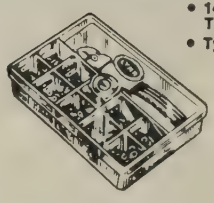
BELL-MOUTH INSULATED — SOLD IN PACKAGES OF 100

Wire Size	Stud Size	Length Inches	Type	Stock No.	Mfr's Type	PRICE PER PKG. 1-9	10-49	50-99	100-Up	Stock No.	Mfr's Type	PRICE PER PKG. 1-9	10-49	50-99	100-Up
22-18	8	.875	Ring	975-7618	R4A-8	5.98	4.60	3.83	3.19						
16-14	10	.875	Ring	975-7630	R4B-10	5.98	4.60	3.83	3.19						
22-18	8									975-8108	BS-6A-8	11.24	8.65	7.21	6.01
16-14	10	.781	Spade	975-7660	BS4B-10	5.98	4.60	3.83	3.19	975-8140	BS6B-10	12.51	8.65	7.21	6.01
22-18	4-6	.781	Spade w/flange	975-7666	BSF4A-6	5.98	4.60	3.83	3.19						

- Popular Assortment
- Carrying Case
- Rugged Crimper

TERMINAL KITS WITH CRIMPER/CUTTER

MODEL TDY21-G1. Popular assortment contains 500 insulated single-grip solderless terminals, plus rugged combination cutter-crimper tool for correct installation. Package includes: 20 different types and sizes of terminals; plus Model TDY101 high-grade steel service tool. Compact steel carrying / storage case measures 13⅝″ wide, 9¾″ deep, 2″ high. Shpg. wt., 6 lbs.
975R4063. 1-4 Ea. 45.50 5-Up Ea. 34.00



- 140 Solderless Terminals
- Type 1900 Crimper

ASSORTED TERMINALS SERVICING OUTFIT

MODEL TDY13-G3. Handy kit contains approximately 140 solderless terminals in most popular sizes, in addition to a Type TDY101 crimper/cutter which handles 18-22, 14-16 and 10-12 wires. Also strips insulation from No. 22 to 10 wire, cuts wire and bolts. Assortment and tool are supplied in convenient clear plastic case with slotted compartments. Identification and placement grid on inside case lid provides ease in locating and replacing parts. Overall case size: 11 x 6½ x 1¾″. Shpg. wt., 2 lbs.
975R3670. 1-4 Ea. 15.25 5-Up Ea. 13.00

- 1000 Solderless Terminals
- Steel Case

NON-INSULATED TERMINAL KIT

MODEL TDY21-G2. Contains 1000 single-grip non-insulated type solderless terminals, plus a combination crimping-cutter installing tool all housed in a compact steel storage box that provides complete protection of tool and terminals—in the field or in the factory. Includes 50 each of twenty different types and sizes of solderless terminals to meet almost all applications and needs. Shpg. wt., 7 lbs.
975-4100. 1-4 Ea. 44.80 5-Up Ea. 34.00

- Cuts, Strips, Crimps, Slices

MODEL TDY-101 ALL-PURPOSE CRIMPING AND CUTTING TOOL

The only tool you need to make excellent electrical connections without solder. Cuts and strips wire; slices bolts; has crimping dies for insulated and non-insulated terminals. Wire cutter located at tip of tool for close work. Stripping notches for Nos. 10, 12, 14, 16, 18, 20, 22 wire. Slices bolts 10-32, 6-32, 5-40, 10-24, 8-32 and 4-40. Has plastic-insulated handles. Rugged, treated-steel construction. Wt. 1 lb.
975R3590. 1-9...Ea. 7.20 10-Up...Ea. 5.76

Multi-Purpose Coaxial Cable

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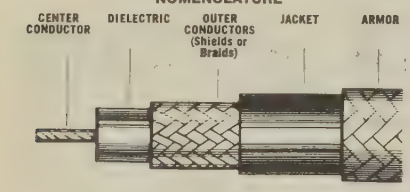
Coaxial Cable for Industry

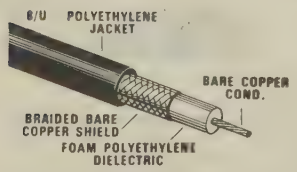
OPERATING TEMPERATURE LIMITS FOR CABLE JACKETS

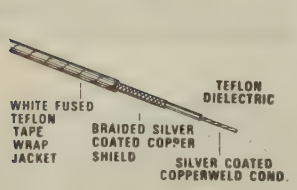
Military Designation	Jacket Type	Temperature Limits
Type I	Black Polyvinylchloride	−40°C to + 80°C
Type II	Gray Polyvinylchloride	−25°C to + 80°C
Type IIA	Black or Gray Polyvinylchloride	*−55°C to + 90°C †−40°C to + 90°C
Type V	Fiberglass Braid	−55°C to +250°C
Type VII	Teflon (PTFE)	−55°C to +250°C
Type IX	Teflon (FEP)	−55°C to +200°C

*Under ¼" O.D.; †Over ¼" O.D.

NOMENCLATURE






TEFLON DIELECTRIC
WHITE FUSED TEFLON TAPE WRAP JACKET
BRAIDED SILVER COATED COPPER SHIELD
SILVER COATED COPPERWELD COND.

MIL-C-17D POLYETHYLENE DIELECTRIC RG COAXIAL CABLES

An assortment of the most popular types of **MIL-C-17D** RG coaxial cables. Typical applications include RF transmission line, antenna lead-in and test lead. All types listed combine low capacitance and low attenuation. All have low-loss polyethylene dielectrics and meet MIL-C-17D specifications. See chart for available lengths.

RG No.	Cond. AWG	O.D. Inches	Imp. Ohms	Cap. pF	Max. Volts	Cable Jacket	100-Ft. Spools Stock No.	100-Ft. Spools EACH	500-Ft. Spools Stock No.	500-Ft. Spools EACH	1000-Ft. Spools Stock No.	1000-Ft. Spools EACH
8/U	13 (7x21)	.405	50	29.5	5000	I	743-1070	31.50				
8A/U	13 (7x21)	.415	52	29.5	5000	IIA	NOW DESIGNATED AS 213/U					
9/U	13 (7x21)	.420	50	30.0	5000	II Gray	743-1100	102.71				
11/U	18 (7x26)	.405	75	20.5	5000	I	743-1150	26.47	743-1151	124.84		
58/U	20 (Solid)	.195	53.5	28.5	1900	I	743R1670	13.94	743-1671	61.37		
58A/U	21 (19x33)	.199	50	29.5	1900	I	743R1680	16.03	743-1681	70.14		
58C/U	21 (19x33)	.199	50	29.5	1900	IIA	743-1820	21.29	743-1821	92.69		
59/U	22 (Solid)	.242	73	21.0	2300	I	743R1840	23.55	743-1841	84.75		
59A/U	.023CW	.246	75	20.5	2300	IIA	REPLACED BY 59B/U					
59B/U	.023CW	.246	75	20.5	2300	I	743R1860	25.97	743-1861	117.74		
62/U	22CW	.250	93	13.5	750	IIA	743-1880	19.54				
62A/U	22CW	.240	93	13.5	750	IIA	743-1893	18.79	743-1891	86.42	743-1892	137.27
187A/U	7/.004SCW	.110	75	19.5	1200	VII	743-3160	65.63				
174/U	7/34CW	.105	50	30	1500	I	743R2900	14.70	743R2901	50.10	743-2902	86.42
213/U	13 (7x12)	.412	50	30.5	3000	IIA	743-3280	37.57				

LOW-LOSS FOAM COAXIAL CABLE

Ideal for use in community TV antenna installations. Offers much lower loss than regular RG types of coaxial cables. Combines low attenuation and low capacitance. Cellular polyethylene reduces signal attenuation as much as 35% — assures constant electrical characteristics for fine reception regardless of location. Type 59/U is ideal as color TV antenna lead-in. **Note: this series is not RG cable; do not include RG prefix in type number when ordering.** Bare except *bare copperweld.

Type No.	Cond. AWG	O.D. Inches	Imp. Ohms	Cap. pF	Maximum Volts	Cable Jacket	100-Ft. Spools Stock No.	100-Ft. Spools EACH	500-Ft. Spools Stock No.	500-Ft. Spools EACH
F-8/U	13 (7x21)	.405	50	24.5	1500	I	661-4000	19.95	661-4001	95.19
F-11/U	18 (7x26)	.405	75	16.5	1300	I	743-4020	30.06		
F-58/U	20 (Solid)	.195	53.5	17.0	1000	I	661-4040	10.50	661-4041	32.56
F-59/U	22 (Solid)*	.242	73	17.3	1000	I	661-4070	10.72	661-4071	38.91

MIL-C-17D TEFLON DIELECTRIC COAXIAL CABLE

Meet all the specification of MIL-C-17D with the added protection of a Teflon dielectric. Not only does this cable withstand high temperatures, but it also possesses excellent all-around weathering properties. Chemically inert, insoluble in liquids and/or gases. Impedances from 50 to 95 ohms.

RG No.	Conductor AWG	O.D. Inches	Imp. Ohms	Cap. pF	Maximum Volts	Cable Jacket	100-Ft. Spools Stock No.	100-Ft. Spools EACH
141/U	19 (Solid)	.195	50	29	1900	V	743-2550	140.28
178B/U	30 (7x28)	.072	50	29	1000	IX	743-2940	35.32
188/U	7x.0067	.110	50	29	1200	VII	NEW DESIGN 188A/U	
188A/U	26 (7x.0067)	.106	50	29	1200	VII	743-3180	66.38
195/U	7x38	.155	95	15.2	1500	VII	743-3190	100.20
196A/U	30 (7x38)	.076	50	29	1000	VII	743-3220	41.33

Heavy-Duty Extension Cords and Outlet Boxes

HIGH QUALITY, REASONABLY PRICED CORDS FOR EVERY APPLICATION

U.L. Listed power supply and extension cords for a wide variety of applications in factories, warehouses, farms, office and homes. Ideal for machinery, test instruments, construction equipment, home and shop power tools, and small appliances.

THREE-CONDUCTOR POWER SUPPLY AND REPLACEMENT CORDS

Stock No.	Allied Type	Equivalent Types			Size & Type	Lgth.	Rating @ 125 V	Color	EACH	
		Belden	Columbia	Dearborn					1-9	10-Up
663R7016	7016	17236	20328	9601	18/3 SV	6′	10A	Black	1.82	1.46
663R7017	7017	17238	20329	9603	18/3 SV	8′	10A	Black	2.03	1.62
663R7018	7018	17237	20330	9609	18/3 SVT	6′	10A	Gray	1.62	1.29
663R7019	7019	17239	20331	...	18/3 SJ	8′	10A	Gray	1.80	1.44
663R7020	7020	17406	20264	9615	18/3 SJ	6′	10A	Black	1.90	1.52
663R7021	7021	17408	20314	9617	18/3 SJ	8′	10A	Black	2.60	1.86
663-7022	7022	17412	20317	...	18/3 SJ	12′	10A	Black	3.05	2.44
663-7023	7023	17405	24936	...	18/3 SJT	6′	10A	Gray	1.80	1.44
663-7025	7025	...	24939	...	18/3 SJT	9′	10A	Gray	2.40	1.92
663-7026	7026	17409	...	9643	18/3 SJO	8′	7A	Black	3.25	2.60
663-7027	7027	...	24926	...	16/3 SJT	6′	13A	Black	2.35	1.88
663-7028	7028	...	20324	...	16/3 SJ	8′	13A	Black	3.15	2.55
663R7029	7029	17419	24929	9619	16/3 SJ	9′	13A	Black	3.13	2.50
663-7030	7030	17242	24932	...	16/3 SJ	12′	13A	Black	3.88	3.10
663-7031	7031	...	24946	...	16/3 SJT	6′	13A	Gray	2.35	1.88
663-7032	7032	...	24949	...	16/3 SJT	9′	13A	Gray	3.18	2.54

THREE-CONDUCTOR EXTENSION CORD

Stock No.	Allied Type	Equivalent Types			Size & Type	Lgth.	Rating @ 125 V	Color	EACH	
		Belden	Columbia	Dearborn					1-9	10-Up
663R7043	7043	17460	20288	9636	18/3 SJ	10′	10A	Black	3.33	2.66
663-7044	7044	...	26525	9638	18/3 SJ	25′	10A	Black	7.88	6.30
663-7045	7045	...	...	9639	18/3 SJ	50′	7A	Black	12.44	10.58
663-7046	7046	...	...	9641	16/3 SJ	10′	10A	Black	5.25	4.20
663-7047	7047	...	20294	9640	16/3 SJ	15′	13A	Black	6.63	5.30
663-7048	7048	...	26625	9642	16/3 SJ	25′	13A	Black	8.25	6.60
663-7049	7049	...	26650	9644	16/3 SJ	50′	13A	Black	15.25	12.20

TWO-CONDUCTOR POWER SUPPLY AND REPLACEMENT CORDS

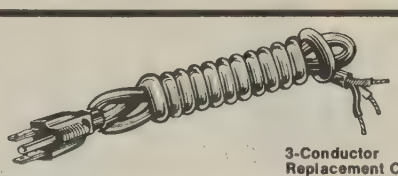
Stock No.	Allied Type	Equivalent Types			Size & Type	Lgth.	Rating @ 125 V	Color	EACH	
		Belden	Columbia	Dearborn					1-9	10-Up
663-7000	7000	17206	20250	9600	18/2 SV	6′	10A	Black	1.47	1.18
663-7003	7003	17205G	20327G	9602	18/2 SVT	6′	10A	Gray	1.23	.98
663-7008	7008	...	24546	...	18/2 SJT	6′	10A	Gray	1.35	1.08

TWO-CONDUCTOR EXTENSION CORDS

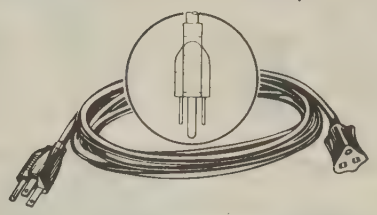
Stock No.	Allied Type	Equivalent Types			Size & Type	Lgth.	Rating @ 125 V	Color	EACH	
		Belden	Columbia	Dearborn					1-9	10-Up
663-7033	7033	...	20272	9620	18/2 SV	6′	10A	Black	2.10	1.68
663-7035	7035	...	26010	9624	18/2 SJ	10′	10A	Black	3.64	2.60
663-7036	7036	...	26025	9626	18/2 SJ	25′	10A	Black	5.38	4.30
663-7038	7038	17361	26110	9628	16/2 SJ	10′	13A	Black	3.33	2.66

SMALL APPLIANCE CORDS

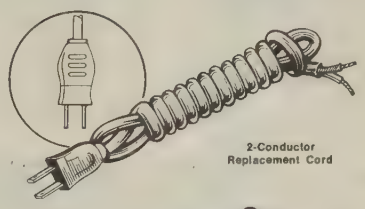
Stock No.	Allied Type	Equivalent Types			Size & Type	Lgth.	Rating @ 125 V	Color	EACH	
		Belden	Columbia	Dearborn					1-9	10-Up
663-7012	7012	17106	24586	9650	18/2 SPT-1	6′	10A	Brown	.68	.55
663-7013	7013	...	24596	...	18/2 SPT-1	6′	10A	White	.68	.55
663-7014	7014	17109	24589	9651	18/2 SPT-1	9′	10A	Brown	.85	.68
663-7015	7015	...	24599	...	18/2 SPT-1	9′	10A	White	.85	.68



3-Conductor Replacement Cord



3-Conductor Extension Cord



2-Conductor Replacement Cord

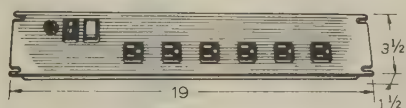
Small Appliance Cord

CLASS AND TYPE DESIGNATIONS

Cords on this page are UL Listed. The type designations of the National Electrical Code are as follows: **SJ,** junior hard-service cord. Rubber insulation, ethylene propylene rubber or other rubber jacket. 300 V. **SJO,** junior hard-service oil-resistant cord. Rubber insulation, nitrile-PVC jacket or neoprene jacket. 300 V. **SJT,** junior hard-service cord. Polyvinyl chloride insulation and jacket. 300 V. **SPT-1,** All-plastic parallel cord. 30 mils polyvinyl chloride insulation/jacket. 300 V. **SV,** Rubber insulation, rubber jacket, 300 V. **SVT,** All plastic cord. Polyvinyl chloride insulation/jacket. 300 V.

9

OUTLET BOXES



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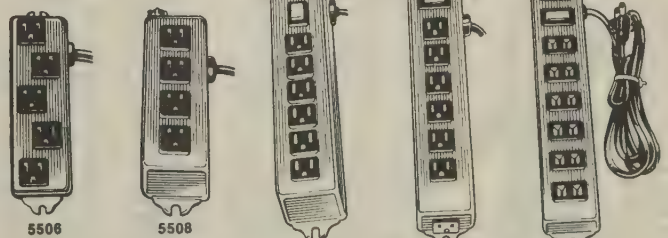
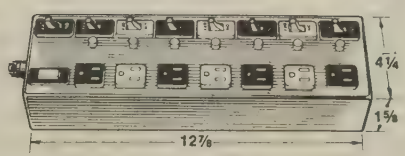


5506 5508 5528 5536 5580

Rated 15 amps, 130 VAC, mechanically grounded. Steel case. Type 5580 is 2-wire, all others 3-wire grounded.
*Pilot light. †Switch.

Stock No.	Mfr's Type	No. Outlets	Fuse	Circuit Breaker	Cord L. Ft.	EACH 1-4	EACH 5-Up
533-7000	5506	4	..	..	6	12.25	9.80
533-7010	5508	4	X	..	6	13.73	10.98
533-7020	5508	4	..	X	6	12.55	10.95
533-7025	5508	4	..	X	15	13.65	12.95
533-7080	5536*†	7	X	..	6	15.65	14.85
533R7070	5536*†	7	..	X	6	17.75	16.85
533-7095	5580*†	6	..	X	6	13.45	12.85
533R7100	5528*†	6	X	..	6	14.80	14.05
533-7105	5528*†	6	X	..	15	16.90	16.05
533-7110	5528*†	6	..	X	6	16.90	16.05
533-7115	5528*†	6	..	X	15	19.00	18.05
533-7130	5000*†	7	X	..	6	21.10	20.05
533-7135	5000*†	7	..	X	6	23.15	22.00
533-7140	6000*†	6	X	..	6	32.60	30.90
533-7145	6000*†	6	X	..	15	34.70	32.95
533-7150	6000*†	6	..	X	6	34.70	32.95
533-7155	6000*†	6	..	X	15	36.80	34.95
533-7170	7000*†	8	..	X	6	26.90	25.55
533-7175	7000*†	8	..	X	15	29.00	27.55



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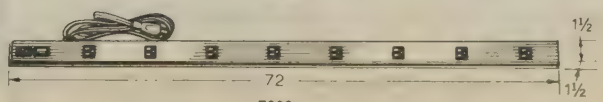
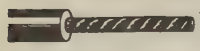


7000

Hook-Up Wire and Cross-Reference

NOTE: See Table A at Bottom of Page for Ordering Information

MIL-W-76B TYPE MW — UNCOVERED (PVC)



POLYVINYL CHLORIDE INSULATED. Solid or extra stranded tinned copper, color coded medium wall polyvinylchloride insulation. (Nominal wall thickness .016″).

Characteristics: Temperature rating: —40° C to +80° C. Voltage rating: 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

STRANDED

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-560N	1550	1000	24	7x32	.059	2.8 lb.	1, 2, 3	14.76
708-561N	1551	1000	22	7x30	.064	3.6 lb.	1-4, 6	17.30
708-563N	1553	1000	20	10x30	.073	4.8 lb	1-3	19.67
708-565N	1555	1000	18	16x30	.084	7.3 lb.	1-4	26.34
708-567N	1557	100	16	26x30	.095	11.2 lb	1-3	37.93
708-580N	1550	100	24	7x32	.059	.4 lb.	1-4	3.38
708-581N	1551	100	22	7x30	.064	.5 lb.	1-6, 8	3.78
708-583N	1553	100	20	10x30	.073	.6 lb.	1-4	4.43
708-585N	1555	100	18	16x30	.084	.8 lb.	1-4, 6	5.25
708-587N	1557	100	16	26x30	.095	1.2 lb	1-4	7.33
708-589N	1559	100	14	41x30	.110	1.7 lb.	1-4	10.28

SOLID

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-571N	1561	1000	22	....	.060	3.3 lb.	3	13.49
708-573N	1563	1000	20	....	.066	4.6 lb.	2	16.98
708-591N	1561	100	22	....	.060	.4 lb.	1-4	2.90
708-593N	1563	100	20	....	.066	.6 lb.	1-3	3.83
708-595N	1565	100	18	....	.074	.8 lb.	2-3	5.00

MIL-W-16878 TYPE B
VINYL INSULATED — 600 VOLTS — +105°C

Each strand double copper tinned. Color coded nom. wall thickness .010″ polyvinylchloride insulation. Temperature rating: —55° C to +105° C. Voltage rating: 600 volts. Resistant to acids, alkalis, oils, flame, moisture, solvents, and fungus.

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-261N	1858/19	100	16	19x28	.077	1.00 lb.	1-4	6.45
708-263N	1857	100	18	7x26	.068	.75 lb.	1-8	5.08
708-266N	1856	100	20	7x28	.058	.50 lb	1-4	4.75
708-267N	1856	1000	20	7x28	.058	5.00 lb.	6	20.16
708-271N	1855	100	22	7x30	.050	.50 lb.	1-9	3.88
708-274N	1854	100	24	7x32	.044	.25 lb.	2-4	3.48
708-277N	1853	100	26	7x34	.039	.25 lb.	1-4	3.48
708-346N	1852	100	28	7x36	.035	.25 lb	1-3	3.48
708-348N	1851	100	30	7x38	.032	.25 lb.	1, 2	3.55

MIL-W-16878D TEFLON WIRE — 600 V

Type E, extruded. Single conductor, stranded silver-plated copper. Temperature rating: —65° C to +200° C. Voltage rating: 600 V. .010″ nominal thickness.

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-784N	5852	100	28	7x36	.036	.2 lb.	1-5	11.13
708-787N	5853	100	26	7x34	.040	.2 lb.	2	12.28
708-790N	5854	100	24	19x36	.045	.3 lb.	1-5	10.50
708-796N	5855	100	22	19x34	.051	.4 lb	1-5	11.35
708-799N	5855/7	100	22	7x30	.050	.6 lb.	1, 3-5	14.98
708-802N	5856	100	20	14x32	.054	.6 lb.	1-3	12.78
708-808N	5857	100	18	19x30	.070	.9 lb.	2-5	17.22
708-820N	5858	100	16	19x29	.077	1.2 lb.	2, 3, 6	20.94

MIL-W-5086A UNSHIELDED AIRCRAFT WIRE

MIL-W-5086A TYPE 1 — single conductor stranded tinned copper, white PVC insulation, clear nylon with polymide jacket overall. Temp. rating: -55°C to +105°C. 600 V.

MIL-W-5086A Type I

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Mil Type	EACH
708-5572	1381	100	22	19x34	.068	.6 lb.	AN22-1	9.63
708-5578	1384	100	16	19x29	.098	1.3 ib.	AN16-1	14.05

TEFZEL® UL STYLE 1516 COMPUTER WIRE

Solid silver-plate OFHC copper conductor. Newly developed Tefzel® insulation provides high temperature; thin-wall suitable for wire wrap insulation. Temperature rating: —100° C to +150° C continuous.

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-900N	1805	100	30	....	.019	.10 lb.	1-6, 8	13.28
708-901N	1805	1000	30	....	.019	1.00 lb.	3, 5	76.59
708-902N	1806	100	28	....	.023	.20 lb.	1-6, 0	14.15
708-904N	1807	100	26	....	.026	.20 lb.	1-6, 9	10.05
708-906N	1808	100	24	....	.029	.30 lb.	1-4, 6-8	11.17

UL STYLE 1007 — CSA HOOK-UP WIRE
1/64″ NOMINAL WALL THICKNESS

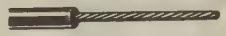
Stranded tinned copper, color coded polyvinylchloride insulation. Temperature rating: UL Style 1007 (CSA Style TR-64), —10° C to +80° C, 300 volts; UL Style 1015 (CSA Style TEW-105), —10° to 105° C, 600 volts.

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-910N	3050	100	24	7x32	.057	.28 lb.	1-9	3.88
708-912N	3051	100	22	7x30	.065	.38 lb.	1-9	4.40
708-914N	3053	100	20	10x30	.071	.50 lb.	1-9	5.68
708-916N	3055	100	18	16x30	.080	.72 lb.	1-9	7.93
708-918N	3057	100	16	26x30	.095	1.08 lb.	2, 3	11.15

UL STYLE 1015 — CSA HOOK-UP WIRE
1/32″ NOMINAL WALL THICKNESS

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-950N	3071	100	22	7x32	.095	.60 lb.	1-4	4.48
708-952N	3073	100	20	10x30	.102	.75 lb.	1-9	5.50
708-954N	3075	100	18	16x30	.112	.98 lb.	1-9	6.83
708-956N	3077	100	16	26x30	.125	1.40 lb.	1-3	8.38
708-958N	3079	100	14	41x30	.142	2.01 lb.	1-6	11.80

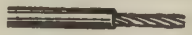
UL STYLE 1429
RX 7000 — IRRADIATED — HEAT RESISTANT — SOLID



Tinned copper. Color coded nom. wall thickness .010″ polyvinylchloride insulation. Temperature rating: —55° to +105° C. Voltage rating: 600 volts. Resistant to acids, alkalis, oils, flame, moisture, solvents, fungus.

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
708-280N	7161	1000	22	....	.045	3.0 lb.	2, 3	26.75
708-290N	7161/24	1000	24	....	.040	3.0 lb.	2	23.51
708-300N	7163	1000	20	....	.054	1.5 lb.	1, 2	41.18

KYNAR HOOK-UP WIRE



Vinylidene fluoride insulation. Conductor solid OFCH. Temperature rating: to 125° C; U.L. to 105° C.

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Color	EACH
768-886N	772601	1000	26	1	.0270	2.5 lb.	1-3, 6	57.75
768-887N	772801	1000	28	1	.0200	2.0 lb.	6	56.65
768-888N	773001	1000	30	1	.0195	1.5 lb.	1-4, 6	56.10

COMPLETE HOOK-UP WIRE CROSS REFERENCE
In Allied Stock No. Sequence

Allied	Alpha	Belden	Columbia	Dearborn
708-261N	1858 CL/100	8500	07513	171619
708-263N	1857 CL/100	8501	07511	171807
708-266N	1856 CL/100	8502	07509	172007
708-267N	1856 CL/1000	8502	07509	172007
708-271N	1855 CL/100	8503	07507	172207
708-274N	1854 CL/100	8504	07503	172407
708-277N	1853 CL/100	8505	07501	172607
708-280N	7161 CL/1000	83404	—	252201
708-290N	7161/24 CL/1000	83403	—	252401
708-300N	7163 CL/1000	—	—	—
708-346N	1852 CL/100	8597	07500	172807
708-348N	1851 CL/100	8598	07499	173007
708-5572	1322 CL/100	—	07080	102219
708-5578	1382 CL/100	—	07081	102019
708-560N	1550 CL/1000	8525	07600	302407
708-561N	1551 CL/1000	8524	07602	302207
708-563N	1553 CL/1000	8523	07604	302010

Allied	Alpha	Belden	Columbia	Dearborn
708-565N	1555 CL/100	8522	07606	301816
708-567N	1557 CL/1000	8521	07608	—
708-571N	1561 CL/1000	8530	07603	302201
708-573N	1563 CL/1000	8529	07605	302001
708-580N	1550 CL/100	8525	07600	302407
708-581N	1551 CL/100	8524	07602	302207
708-583N	1553 CL/100	8523	07604	302010
708-585N	1555 CL/1000	8522	07606	301816
708-587N	1557 CL/100	8521	07608	—
708-589N	1559 CL/100	8520	07610	—
708-591N	1561 CL/100	8530	07603	302201
708-593N	1563 CL/100	8529	07605	302001
708-595N	1565 CL/100	8528	07607	301801
708-784N	5852 CL/100	83001	07014	12807
708-787N	5853 CL/100	83002	07018	12607
708-790N	5854 CL/100	83003	07019	12419
708-796N	5855 CL/100	83006	07030	12219

Allied	Alpha	Belden	Columbia	Dearborn
708-799N	5855/7 CL/100	83005	07026	12207
708-802N	5856 CL/100	83007	07034	12019
708-808N	5857 CL/100	83009	07038	11819
708-820N	5858 CL/100	83010	07042	11619
768-886N	5953 CL/1000	—	—	772601
768-887N	5952 CL/1000	—	—	772801
768-888N	5951 CL/1000	—	—	773001
708-910N	3050 CL/100	—	02015	402407
708-912N	3051 CL/100	—	02016	402207
708-914N	3053 CL/100	—	02040	402010
708-916N	3055 CL/100	—	02064	401816
708-918N	3057 CL/100	—	02065	401626
708-950N	3071 CL/100	8920	02100	412207
708-952N	3073 CL/100	8919	02102	412010
708-954N	3075 CL/100	8918	02103	411816
708-956N	3077 CL/100	8917	02104	411626
708-958N	3079 CL/100	8916	02105	411441

All hook-up wire on this page is the best engineered hook-up wire available today. One of these wire types should adequately fulfill your exact specifications. If you do not find the hook-up wire you are looking for on this or any other wire page, feel free to contact Allied's nearest sales office . . . we are sure to have it in stock, or readily available for prompt delivery. When ordering note Table A at right for easier filling of your order.

TABLE A — ORDERING INFORMATION

Insert in place of N in Stock No., number of color desired. Individual listings show colors available.

White 1	Green 4	Brown 7	Violet 0
Black 2	Yellow 5	Orange 8	
Red 3	Blue 6	Gray 9	

Alec Electron Says You Do Yourself a Great Service When You Buy From Allied

Alec Electron Says Write, Wire or Phone Allied Electronics for Larger Quantity Pricing

Unshielded Cables

MULTI-CONDUCTOR UNSHIELDED AUDIO CABLE

Stock No.	Mfr's Type	Ft. Per Spool	Desc.	Conductors No.	Conductors Size	Conductors Strand	Nom O.D. Inch	Wt. Lbs.	EACH
708-5397	1172	100	A	2	22	7x30	.150	1.3	8.58
708-2079	1172	500	A	2	22	7x30	.150	8.5	19.96
708-2080	1172	1000	A	2	22	7x30	.150	15.3	39.91
708-0906	1895	100	B	2	20	10x30	.190	2.3	9.55
708-0903	1895	500	B	2	20	10x30	.190	9.3	23.46
708-0905	1895	1000	B	2	20	10x30	.190	20.0	46.93
708-6250	1897	100	B	2	18	16x30	.21	2.5	12.68
708-2221	1897	500	B	2	18	7x26	.226	15.0	36.71
708-2284	1899	500	B	2	16	19x29	.256	19.3	49.55
708-5398	1173	100	A	3	22	7x30	.158	1.5	9.38
708-2082	1173	500	A	3	22	7x30	.158	10.0	24.55
708-2083	1173	1000	A	3	22	7x30	.158	20.0	49.10
708-5399	1174	100	A	4	22	7x30	.172	2.0	12.08
708-2085	1174	500	A	4	22	7x30	.172	12.5	33.48
708-2086	1174	1000	A	4	22	7x30	.172	25.0	66.97
708-2365	1898/4	100	B	4	18	16x30	.250	5.25	14.71
708-2367	1898/4	500	B	4	18	16x30	.250	26.25	67.28
708-3715	1064	100	D	4	16	19x29	.375	8.25	23.05
708-2087	1175	100	A	5	22	7x30	.180	2.75	14.13
708-2088	1175	500	A	5	22	7x30	.180	13.75	39.99
708-5401	1176	100	A	6	22	7x30	.185	2.6	16.28
708-2090	1826	100	A	6	18.22	18x30	.222	4.5	13.69
708-3719	1067	100	D	7	16	19x29	.455	13.0	42.67
708-2096	1828	100	A	8	18.22	16x30	.25	5.0	17.20
708-2097	1828	500	A	8	18.22	16x30	.25	25.0	75.82
758-2099	04084	100	A	9	18.22	16x30	.261	5.25	16.37
708-5405	1180	100	A	10	22	7x30	.235	4.2	18.29
708-2121	1180	500	A	10	22	7x30	.235	26.25	83.42
708-5406	1181	100	A	12	22	7x30	.255	5.0	20.64
708-2128	1181	500	A	12	22	7x30	.26	27.5	94.10
708-2247	1898/12	100	B	12	18	16x30	.402	13.5	53.31
708-3724	1072	100	D	12	16	19x29	.600	21.75	69.56
708-5407	1181/15	100	A	15	22	7x30	.28	6.2	32.65
708-6256	1898/15	100	B	15	18	16x30	.49	18.7	58.95
708-3728	1075	100	D	15	16	19x29	.650	26.75	97.37
708-3734	1079	100	D	19	16	19x29	.715	42.25	119.41
708-5408	1181/20	100	A	20	22	7x30	.31	8.2	38.93
708-5409	1181/25	100	A	25	22	7x30	.34	10.0	51.10

TELEPHONE STATION CABLE

708-5477	1204	100	E	4	22	Solid	.185	2.1	11.18

MULTI-CONDUCTOR UNSHIELDED CABLE—PAIRED

708-5531	1317	100	C	4	22	7x30	.225	2.1	13.63
708-5048	1302	100	C	4	22	Solid	.208	3.0	7.87
708-5049	1302	500	C	4	22	Solid	.208	14.0	31.48
708-5051	1304	100	C	6	22	Solid	.220	4.3	10.44
708-5052	1304	500	C	6	22	Solid	.220	18.0	43.92
708-5061	1305	100	C	8	22	Solid	.238	3.8	13.86
708-5062	1305	500	C	8	22	Solid	.238	17.3	58.28
708-5064	1322	100	C	12	22	7x30	.320	6.5	20.62
708-5065	1322	500	C	12	22	7x30	.320	30.0	94.61
708-5066	1323	100	C	18	22	7x30	.389	9.0	30.81
708-5067	1323	500	C	18	22	7x30	.389	50.0	145.04
708-5085	1327	100	C	30	22	7x30	.455	14.6	51.60

Ⓐ Multi-conductor unshielded audio cable. Twisted copper conductors, PVC jacketed, color-coded. For outdoor installations. Temperature: −20°C to +80°C.

1899

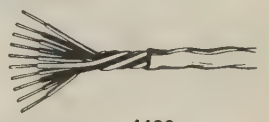
Ⓑ Multi-conductor unshielded audio cable. UL style 2509. Twisted copper conductors, PVC jacketed, color coded. For outdoor installations. Temperature: −20°C to +80°C.

1173

1204

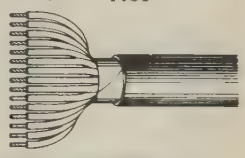
Ⓒ Unshielded intercom cable, twisted into pairs, PVC jacketed, color-coded. For outdoor installations. Temperature: −20°C to +80°C. Rated at 200 volts.

1067



1180

Ⓓ Unshielded control and audio cable, copper inner conductors, color-coded PVC insulation with Mylar wrap, PVC jacketed. Inner conductors meet UL style, 1011. Temperature: −20°C to +80°C. Rated at 600 volts.



1075

Ⓔ **1204:** Telephone station cable, Solid, annealed base copper conductor, color-coded polyethylene insulation, conductors cabled with PVC jacket overall. Jacket designed to resist weathering and abrasion.

1322

CABLE CROSS REFERENCE

Alpha	Belden	Columbia	Dearborn
UNSHIELDED			
1895-100	8205	06351	832002
1175-100	8445	04064	832205
1826-100	8446	04081	—
1828-100	8448	04083	—
—	8449	04084	—
1898/12-100	8466	02412	831812
1898/4-100	8489	02404	831804
1064-100	8620	02425	831604
1067-100	8621	02426	—
1072-100	8622	02427	—
1075-100	8623	02428	—
1079-100	8624	02429	—
1322-100	8747	06017	862206
1323-100	8748	06019	862209
1327-100	8749	06026	862215
1172-100	8442	06348	832202
1173-100	8443	04062	832203
1174-100	8444	04063	832204
1176-100	—	04066	832206
1180-100	8456	04071	832210
1181-100	8457	04067	832212
1181/15-100	8458	04073	832215
1181/20-100	9431	04075	832220
1181/25-100	8459	04076	832225
1204-100	9794	04412	—

Alpha	Belden	Columbia	Dearborn
1317-100	9744	06010	862202
1897-100	8461	02830	831802
1198/15-100	8468	02423	—
SHIELDED			
1250	8412	01302	662002
1716	8405	01645	682005
2254/1	—	—	—
2254	8737	02882	692202
2254/3	—	01335	692203
2254/6	—	01341	692206
2256	8759	02888	692002
2258	8790	02892	691802
2260/3	—	02896	691603
2265	—	02897	691402
2402	—	—	—
2461*	8451	02516	—
2465	8722	01331	—
1449	—	01201	601801
1450	8428	01202	601802
1250	8412	01302	662002
1251	8423	01304	662003
1715	8404	01644	682004
1737	8735	02678	742203
1736	—	02679	742202

Alpha	Belden	Columbia	Dearborn
1741	—	02681	742002
1746	—	02686	741802
1747	—	02687	741803
2254	8737	02882	692202
2254/3	—	01335	692203
2256	8759	02888	692002
2258	8790	02892	691802
6010	8777	06040	962203
1704	8401	01399	—
1452	8407	01604	—
1985	8416	01375	—
1255/8	8418	01313	662008
—	8421	01389	—
1710	8422	01322	—
1254	8426	01310	662006
2460	8450	02515	—
6000	8767	06035	952203
6002	8768	06036	952206
—	8441	02677	—
—	8723	01352	—
—	8728	01353	—
—	8724	01340	—
—	8732	01338	—
1736	—	02679	742202

Alec Electron

Shielded Audio, Intercom, and Control Cables

SHIELDED AUDIO CABLE—BRAID SHIELD

Stock No.	Mfr's Type	Ft. per Spool	Conductor No.	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. Lbs.	EACH
708-7208	3221	100	2	22	19x34	.168	2.8	19.34
758-8582	02679	100	2	22	7x30	185	6.0	18.19
758-8586	02681	100	2	20	10x30	.204	5.0	14.03
758-8510	02686	100	2	18	16x30	.224	3.0	18.87
758-8508	02678	100	3	22	7x30	.200	6.0	13.13
758-8512	02687	100	3	18	16x30	.236	4.0	24.55

SHIELDED AUDIO CABLE—SPIRAL SHIELD

758-8516	02882	100	2	22	7x30	.175	4.0	7.39
758-8517	01335	500	2	22	7x30	.175	20.0	31.98
758-8519	02883	500	2	20	10x30	.195	13.0	37.41
758-8520	02892	100	2	16	16x30	.230	7.0	11.52

SHIELDED AUDIO CABLE—FOIL SHIELD

708-6358	2402	100	2	22	7x30	.170	2.00	12.60
708-6349	2402	500	2	22	7x30	.170	7.5	33.78
708-6355	2461	1000	2	22	7x30	.135	14.80	64.13
758-3688	02515	500	2	22	Solid	.118	7.50	23.71
758-3689	02515	1000	2	22	Solid	.118	15.50	49.93
758-3691	02524	500	2	20	10x30	.195	12.0	33.07
758-3643	02534	500	2	18	16x30	.222	15.0	39.66
758-3644	02534	1000	2	18	16x30	.222	30.0	79.33

SHIELDED AUDIO AND DATA CABLE

758-8710	06040	100	6	22	7x30	.270	5.0	19.37
758-8711	06040	1000	6	22	7x30	.265	44.5	181.11
708-8712	6012	100	12	22	7x30	.342	9.5	43.34
758-9010	06035	100	6	22	Solid	.279	5.0	17.12
758-9020	06036	100	12	22	Solid	.394	9.0	34.99

SHIELDED SOUND BROADCAST, AUDIO AND INSTRUMENTATION CABLES

758-9031	02677	500	2	22	16x34	.210	12.8	46.91
758-9040	01352	100	4	22	7x30	.165	2.4	14.85
758-9041	01352	500	4	22	7x30	.165	11.0	45.51
758-9042	01352	1000	4	22	7x30	.165	22.3	90.93
758-9058	01353	500	4	22	7x30	.198	14.0	68.55

SHIELDED CONTROL CABLE

758-8102	01302	100	2	20	26x34	.270	13.0	21.63
758-8081	01201	100	1	18	41x34	.240	7.0	22.62
758-8083	01202	100	2	18	41x34	.295	11.0	28.31
758-8104	01304	100	3	20	26x34	.285	11.0	24.22
758-8410	01644	100	4	20	26x34	.280	8.0	21.04
708-6048	1716	100	5	20	26x34	.275	7.0	27.76
708-5507	1255/12	100	12	20	26x34	.270	4.5	226.88

SHIELDED INSTRUMENTATION STRAIN GAUGE AND COMMUNICATION CABLE

758-9068	01340	500	4	22	7x30	.165	11.25	44.67
758-9078	01338	100	4	22	7x30	.188x.298	3.0	11.77

MICROPHONE CABLES RUBBER, HYPALON, AND NEOPRENE MICROPHONE AND SHIELDED POWER SUPPLY CABLES

758-2016	01604	100	4	16	65x34	.422	31.0	46.76
758-2061	01310	100	6	20	26x34	.349	9.5	39.83
758-2044	01313	100	8	20	26x34	.386	11.5	49.10

VINYL MICROPHONE AND SHIELD POWER SUPPLY CABLES

758-1992	01399	100	1	25	7x32	.200	2.6	12.53
758-2058	01322	100	2	22	16x34	.231	4.0	13.94
758-2059	01322	250	2	22	16x34	.231	9.0	30.14
758-2056	01322	500	2	22	16x34	.231	18.3	60.28

COMMUNICATION AND INTERCOM COMBINATION CABLE

708-6358	2465	100	4	20	7x28	.233	3.8	12.99

SOUND AND INTERCOM CABLE

708-8842	742202	100	2	22	7x30	.010	2.0	18.03

SPIRAL SHIELD PLASTIC JACKETED CABLE

708-6320	2254/1	100	1	22	7x30	.125	2.0	13.50
708-6321	2254	100	2	22	7x30	.187	2.4	11.33
708-6322	2254/3	100	3	22	7x30	.197	2.8	19.02
708-6324	2254/6	100	6	22	7x30	.251	4.3	41.13
708-6326	2256	100	2	20	7x28	.195	2.7	10.27
708-6331	2258	100	2	18	7x26	.250	3.6	12.68
708-6335	2260/3	100	3	16	19x29	.295	6.0	47.16
708-6336	2265*	100	2	14	19x27	.345	5.7	46.39

SHIELDED HI-FI AND LANGUAGE-LAB CABLE

758-2055	01389	250	1	25	7x33	.180	5.0	21.29
758-2037	01375	250	2	25	7x33	.106x.213	4.6	24.13

Shielded Audio Cable (Braid Shield): Type 3221—Meet MIL-W-16878D Type B. Each conductor stranded tinned copper, color-coded .010" PVC insulation; covered with clear, .003" nylon jacket. Cabled, braided tinned copper shield. White PVC jacket. **Remainder:** Tinned copper conductor, color-coded PVC insulation, conductors twisted, tinned copper braid shield, gray PVC jacket.

Shielded Audio Cable (Spiral Shield): Tinned copper conductor, color-coded PVC insulation, conductor twisted, tinned copper shield, gray PVC jacket overall.

Shielded Audio Cable (Foil Shield): Tinned copper conductor, color-coded polyethylene insulation conductor cable wrapped with mylar-supported aluminum foil shield, foil facing outside, stranded, tinned copper drain wire, gray PVC jacket overall.

Shielded Audio and Data Cable: Available in solid or stranded conductor styles, tinned copper conductor, color-coded insulation (solid—.015" PVC, stranded—.08" polypropylene), each pair and its drain wire under aluminum foil/polyester shield. PVC jacket overall. When ordering, please specify stock no., manufacturer's type, and conductor (number, size, and strand).

Shielded Sound Broadcast, Audio and Instrumentation Cables. Vinyl jacket.

Shielded Control Cable. Extremely flexible—each conductor stranded tinned copper, color-coded. Rubber insulation, cabled with filler. Cotton wrap, braided, tinned copper shield, cotton wrap. Rubber jacket overall. (.035" all types). Nominal wall thickness .019". Suggested operating temperature of −20° C to +60° C. **Type 1716:** Polyethylene insulation, gray PVC jacket.

Instrumentation Cable: 01340—4 vinyl insulated conductor, 2 aluminum wrapping. **013384**—4 polyethylene insulated conductor, 1 pair tinned copper; 1 pair unshielded. All types have chrome vinyl plastic jacket.

Multiple-Conductor Cables: For low-impedance applications. **01302, 01202, 01604, 01310, 01313:** Tinned copper, cotton wrap, rubber insulated, conductors cabled, rayon braid, black rubber jacket.

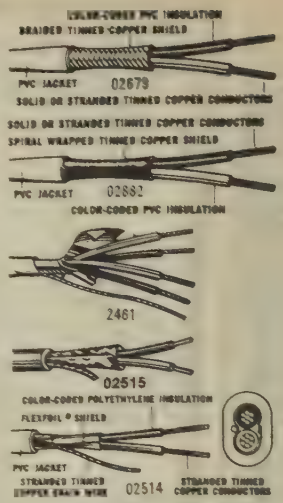
Shielded Single-Conductor Cables: For high-impedance systems. **01399:** Braided textile, polyehtylene insulated, tinned copper, chrome vinyl jacket. **01322.** Tinned copper, polyethylene insulated, conductors cabled, rayon braid, tinned copper shield, chrome vinyl jacket.

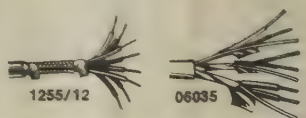
Communication and Intercom Combination Cable: Each conductor stranded, tinned copper, color-coded PVC or polypropylene insulation, braided, tinned or aluminum, mylar over conductors forming shield. Unshielded (2) paired. Foil shielded cables have solid tinned copper drain for grounding.

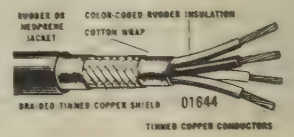
Sound and Intercom Cable: Tinned copper, color-coded PVC. Conductors are twisted and shielded with a tinned copper braided shield (742202). −20° C to +60° C. Rated 350 working voltage. .020" nominal jacket thickness.

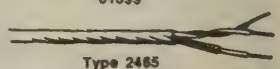
Spiral Shield Plastic-Jacketed Cable: Spiral-wrapped copper shield. 85% shielded coverage for audio and RF frequencies. Each conductor stranded tinned copper. Color-coded PVC insulation. Temp: −20° C to +60° C. All working voltages 350, except *450. All have gray polyvinyl chloride jackets.

Shielded HI-FI and Language Lab Cable: Tinned copper spiral shielded audio cable for interconnecting end language lab equipment.









Specialized Cables, Cords and Wires

TEST PROD WIRE

*Substitute for **N** In Stock No. See Table below for Colors.
†5′ coiled cords.

Stock No.*	Mfr's Type	Ft. Per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. Per Spool	Color*	EACH
708-578N	1632	100	20	46x36	.125	1.2 lb.	2,3	9.90
758-012N	01321	100	18	65x36	.140	3.0 lb.	2,3	9.88
758-013N	01321	500	18	65x36	.140	8.0 lb.	2,3	24.38
758-604N	01318	100	18	65x36	.230	4.0 lb.	2,3	12.60
708-611N	650†	—	20	41x36	.165	4.0 lb.	2,3	3.93

Breakdown Voltage: Type 1632—6,000 volts. Type 01321—20,000 volts. Type 01318—29,000 volts. Type 650—20,000 volts.

Working Voltage: Type 1632—1,500 volts. Type 01321—5,000 volts. Type 01318—10,000 volts. Type 650—5,000 volts.

HIGH VOLTAGE LEADS

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor Strand	Nom. O.D. Inch	Wt. per Spool	Jacket Color	EACH
758-6005	03399	100	18	41x34	.208	2.5	Red	13.90

Breakdown Voltage: Type 03399—110,000 VDC.

Working Voltage: Type 03399—40,000 VDC.

STATIONARY SERVICE CORD

Stock No.	Mfr's Type	Ft. Per Spool	Conductor No.	Conductor Size	Conductor Strand	Type	Nom. O.D. Inch	Amps	EACH
758-3215	01425	100	2	18	41x34	SJ	.298	7	11.11
758-2319	01454	100	3	14	41x30	SJ	.380	15	65.28
758-0222	01482	100	3	16	26x30	SJO	.360	10	25.63
758-0218	01479	100	3	18	16x30	SJO	.330	7	18.12
758-0219	01479	250	3	18	16x30	SJO	.330	7	37.99
758-2113	01421	100	3	18	41x34*	SV	.265	7	30.46

*Tinned

Type SJ (Light duty): tools, power extensions, motor and welding leads, portable machinery, floor polishers and sanders, battery chargers, portable stage lights, garage portable lights, sound equipment, washing machines, refrigerators, sewing machines, and other electrical equipment.

Type SJO: Same as above but for light service only.

Type SV: Vacuum cleaners, home food mixers, office equipment, and other light duty requirements.

RETRACTILE SERVICE CORD

NEOPRENE POWER CORDS

Rated 300 V, except *600 V.

Stock No.	Mfr's Type	L. Ft.	Conductor No.	Conductor Size	Conductor Strand	Type	Nom. O.D. Inch	Nom. Cord O.D.	Amps	EACH
708-5302	660/2	2	2	18	41x34	SVO	⅜	.260″	7	10.14
708-5304	660/4	4	2	18	41x34	SVO	⅜	.260″	7	18.25
708-5313	663/2	2	4	18	41x34	SJO	1 7/32	.385″	5.6	16.65
708-5321	671/2*	2	4	16	65x34	SO	1⅜	.500″	8	27.35

SPEAKER WIRE—LAMP CORD (ZIP CORD)

Stock No.	Mfr's Type	Ft. per Spool	Conductor No.	Conductor Size	Conductor Strand	Nom. O.D. Inch	EACH
758R2213	01415	100	2	18	41x34	.031	5.68
758R2214	01415	250	2	18	41x34	.031	12.66
758-3772	01360	100	2	20	7x28*	.073x.146	5.18
758-5323	01356	500	2	24	7x32*	.058x.115	13.65
768-0361	1242T	100	2	24	7x32	.055x.120	5.63
768-0367	1242T	500	2	24	7x32	.055x.120	15.45

All clear except (*) brown.

Suggested working voltage for all is 300 VAC.

*One conductor tinned.

Extra flexible stranded tinned soft annealed copper conductor, separator, color-coded rubber insulation. —20° C to +60° C. All breakdown voltage and suggested working voltage are AC RMS values. Test lead wire for multimeters, analyzers, oscillators, and other applications needing flexible wire.

03399

03399: Tinned copper, conductive polyethylene insul., vinyl jacket. Temp. —20° C to +60° C.

Copper tinned, soft annealed. Synthetic rubber insulation. Temp. range: —37° C to +140° C. Color-coded conductors: 2 cond.—black, white. 3 cond.—black, white, green. 4 cond. — black, white, green, red. Black Neoprene jacket. For use in areas where exposed to oil, ozone, grease, chemicals or solvents.

Each conductor is stranded copper, with rubber insulation, neoprene jacket overall. Temp. —20° C to +60° C. Use on most electric tools, electrical appliances, household appliances.

Extra-heavy duty. Bare copper conductors, PVC insulation, one conductor ridged for polarity I.D., cond. parallel, rib-type const. Cable UL listed SPT-1. Temp. range: —20° C to +60° C.

SHIELDING AND BONDING CABLES

Stock No.	Mfr's Type	Ft. Per Spool	Stranding	Amps	Rounded I.D. Inch	EACH
758-4023	02980	100	96x34	27	3/16	14.20
758-4024	02980	250	96x34	27	3/16	22.53
758-4032	02981	250	120x34	30	5/32	24.98
758-4025	02983	100	192x34	42	5/32	22.04
758-4026	02983	250	192x34	42	5/32	34.82
758-4033	02984	100	336x34	61.5	13/32	46.76
758-4034	02984	250	336x34	61.5	13/32	76.15

RETRACTABLE MICROPHONE CORDS

Stock No.	Mfr's Type	Extends From In.	Extends To Ft.	Conductor Size	Conductor No.	Conductor Strand	Nom. I.D. Inch	EACH
758-2390	00865	12	5	23	5	21x36	.265	9.50
758-2391	00850	12	6	23	4	21x36	.300	11.27
758-2397	00845	12	6	23	3	21x36	.250	9.83
758-2399	00830	12	6	24	1	45x40	.160	7.73

SHIELDED MICROPHONE CABLE

WITH BRAIDED SHIELD

Stock No.	Mfr's Type	Ft. per Spool	Conductor Size	Conductor No.	Conductor Strand	Nom. O.D. Inch	EACH
708-6003	1703	100	24	1	10x34	.145	10.42
708-6018	1710	100	22	2	16x34	.230	16.12

Type "S" Bus Hookup Wire—To MIL-W-3861, QQ-W-343: Solid copper wire; tinned. For non-insulated hookups.

High-Grade Magnet Wire: Type PE—Plain Enamel Class A (105°). Excellent properties. Round bare copper single conductor covered with a continuous film of oleoresinous enamel.

Heavy Formvar Magnet Wire: HF—Heavy Formvar Class A 105° C Type T-2. Round bare copper conductor covered with baked film insulation forms a varnish base on a vinyl acetal resin. Double layer of film coating.

BUS AND MAGNET WIRE

Stock No.	Mfr's Type	Ft. per Spool	Conductor No.	Conductor Size	Nom. O.D. Inch	Wt. Lbs.	EACH
TYPE "S" BUS HOOKUP WIRE—TO MIL-W-3861, QQ-W-343							
768-0270	926	100	1	26	.016	¼	3.50
768-0271	926	1000	1	26	.016	1	12.50
768-0265	924	100	1	24	.020	¼	3.50
768-0267	924	1000	1	24	.020	1½	13.88
768R0260	922	100	1	22	.025	¼	3.50
768R0261	922	1000	1	22	.025	2¼	14.70
768R0253	920	100	1	20	.032	¼	4.13
768-0255	920	1000	1	20	.032	3½	16.20
768R0250	918	100	1	18	.040	3/5	5.00
768-0251	918	1000	1	18	.040	5	23.29
HIGH-GRADE MAGNET WIRE							
768-0183	18PE	198	1	18	.041¢	10	42.08
768-0185	20PE	313	1	20	.0332	10	42.08
768-0189	22PE	501	1	22	.0266	10	42.08
768-0193	24PE	798	1	24	.0212	10	44.26
768-0197	26PE	1200	1	26	.0169	10	48.85
768-0215	30PE	3200	1	30	.0108	10	52.61
768-0219	32PE	4900	1	32	.0087	10	54.11
HEAVY FORMVAR MAGNET WIRE							
768-0184	20HF	313	1	20	.0346	10	61.62
768-0188	22HF	501	1	22	.0277	10	62.37
768-0192	24HF	798	1	24	.0224	10	64.63
768-0210	28HF	1999	1	28	.0144	10	84.17
768-0218	32HF	4900	1	32	.0095	10	88.68

UL LISTED 600-V MTW WIRE

500′ Spool Stock No.	Mfr's Type	Conductor Size	Conductor Strand	Insul. Inch	Amps ‡	Amps §	Nom. O.D. Inch	Color Code	EACH
758-590N	07800*	18	16x30	2/64	7	7	.113	1-3,5,6	14.20
758-600N	07801*	16	26x30	2/64	10	10	.125	1-4,6,7	18.25
758-610N	07802*	14	19	2/64	15	20	.139	1-3,6	25.23
758-620N	07803*	12	19	2/64	20	25	.158	1-3,6	37.59
758-630N	07804*	10	19	2/64	30	40	.182	1-3,5	59.70
758-650N	07810†	14	19	3/64	15	20	.171	1-3,6	28.81
758-660N	07811†	12	19	3/64	20	25	.190	1-3	40.93

TABLE A—ORDERING INFORMATION

Insert in place of N in Stock No., number of color desired. Individual listings show colors available.

White 1	Green 4	Brown 7	Violet 0
Black 2	Yellow 5	Orange 8	
Red 3	Blue 6	Gray 9	

Tinned Copper Tubular Braid: Maximum shielding against electrostatic interference for wires, cable and other components. Also is a protective covering against mechanical abrasion and stresses.

00865: Unshielded cords. **00830:** Spiral wrap copper shield, other alum. Mylar tape. Single-cond. **00845:** 3 cond. shielded. **00850:** 2 individually shielded conductors and 2 unshielded. All neoprene jackets.

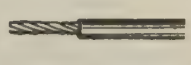
Stranded, tinned copper cond. with color-coded polyethylene insul. Plastic jacket overall (gray, PVC). Suitable for wide variety of mics. **1710:** .025″ jacket. Others .030″ jacket. Wt. all 2 lbs.

Type 8416

Type 18PE

Type 926

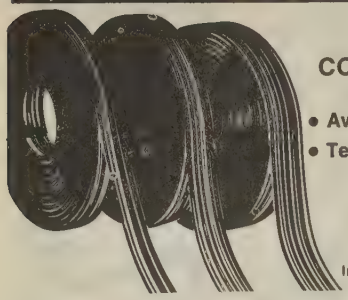
Type 20HF



600-V MTW WIRE

Bare copper conductor, color-coded, PVC insulation. **MTW/AWM—TEW/AWM Light Wall Lead Wire*.** UL and CSA types TEW and AWM: 105° C in air, 60° C in water, 60° C in oil, 600 V. UL and NMTBA type MTW: 90° C in air, 60° C in water, 60° C in oil, 600 V. Sizes 18 AWG through 10 AWG—UL style 1015, 1335. **THW/MTW Heavy Wall Lead Wire†.** Listed as THW by NEC. Rated 90° C in air, 60° C in water, 60° C in oil. Sizes 14 AWG through 10 AWG—UL style 1400 and 1335. ‡Amps in conduit. §Amps in control enclosures.

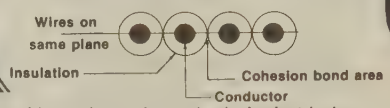
Ribbon Cable, IC Connectors and Assemblies



FLAT BONDED, ROUND CONDUCTOR RIBBON CABLE

- Available in Standard Color Code
- Temperature Range −55°C to +105°C

BONDED CABLE CROSS-SECTION

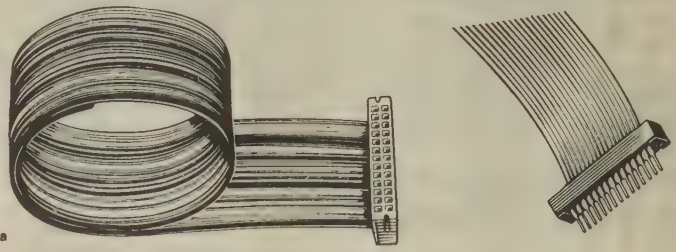


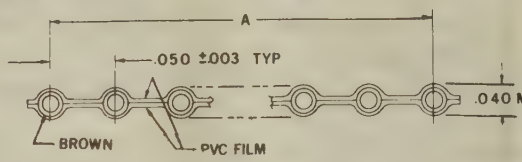
Offers the advantages of round conductors with no change in mechanical, electrical or physical characteristics of insulation or conducting wires. Patented cohesion processed PVC insulation meets **MIL-W-16878D,** latest revision, Type B. Temp. range: −55°C to +105°C. 600 volts. Available in standard color code. Range, 10 to 30 conductors; 22 to 30 gauge; 7 to 19 strands.

FLAT-BONDED, ROUND-CONDUCTOR CABLE

Stock No.	Mfr's Type	Conductors No.	AWG	Strands	Size In. Thk.	Width	Shpg. Lbs.	PER 100-FT. ROLL 1-4	5-9	10-49	50-Up
943-1000	SS-1030-7B	10	30	7	.032	.320	2	29.70	18.30	16.38	13.93
943-1001	SS-1028-7B	10	28	7	.035	.350	2	27.90	17.20	15.33	13.04
943R1002	SS-1026-7B	10	26	7	.039	.390	3	27.50	17.00	15.18	12.91
943R1003	SS-1024-7B	10	24	7	.044	.440	4	32.60	20.10	18.04	15.34
943R1004	SS-1022-7B	10	22	7	.051	.510	5	42.50	26.20	23.45	19.94
943-1005	SS-1024-19B	10	24	19	.044	.440	4	44.90	37.70	24.80	21.09
943-1006	SS-1022-19B	10	22	19	.051	.510	5	52.50	32.40	29.01	24.67
943-1009	SS-1526-7B	16	26	7	.039	.585	4	41.25	25.50	22.78	19.37
943-1010	SS-1524-7B	16	24	7	.044	.660	5	48.90	30.15	27.05	23.00
943-1011	SS-1522-7B	16	22	7	.051	.765	7	63.75	39.30	35.17	29.91
943-1012	SS-1524-19B	16	24	19	.044	.660	5	67.35	41.55	37.21	31.64
943-1013	SS-1522-19B	16	22	19	.051	.765	7	78.75	52.12	43.52	37.01
943-1015	SS-2028-7B	20	28	7	.035	.700	4	55.80	34.40	30.66	26.07
943-1016	SS-2026-7B	20	26	7	.039	.780	5	55.00	34.00	30.36	25.82
943-1017	SS-2024-7B	20	24	7	.044	.880	6	65.20	40.20	36.07	30.67
943-1018	SS-2022-7B	20	22	7	.051	1.02	8	46.89	39.87	37.34	34.81
943-1019	SS-2024-19B	20	24	19	.044	.880	6	89.80	55.40	49.60	42.17
943-1020	SS-2022-19B	20	22	19	.051	1.02	8	105.00	64.80	58.02	49.33
943-1021	SS-3030-7B	30	30	7	.032	.960	4	89.10	54.90	49.15	41.79
943-1023	SS-3026-7B	30	26	7	.039	1.17	6	82.50	51.00	45.54	38.72
943-1024	SS-3024-7B	30	24	7	.044	1.32	8	97.80	60.30	54.11	46.01
943-1025	SS-3022-7B	30	22	7	.051	1.53	11	127.50	78.60	70.34	59.81
943-1027	SS-3022-19B	30	22	19	.051	1.53	11	157.50	97.20	87.02	73.99

TYPE 3C® CONTROLLED CHARACTERISTICS CABLE





Multi-conductor cable with spacing between conductors of .050″ and controlled tolerances of ±.003″. Allows designer to predict, specify, control parameters. Assures exact matching of conductors with connector and circuit board patterns. U.L. Style 2599, wire encapsulated in self-extinguishing clear PVC film. Temp. rating: 105°C. 300 VAC. Min. composite insul. over conductors, .011″ thick. Basic wire meets **MIL-W-16878D,** latest revision, Type B.

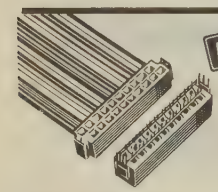
28 AWG—7/36 STRAND, STANDARD COLOR-CODED

Stock No.	Mfr's Type	Similar 3M No.*	No. of Cond.	Dim. A In.	PER 100-FT. SPOOL 1-4	5-9	10-49	50-Up
943-1050	455 044-14	3365-14*	14	.650	28.08	24.00	18.28	20.93
943R1051	455 044-16	3365-16	16	.750	32.09	27.42	23.91	22.39
943-1052	455 044-20	3365-20	20	1.000	40.11	34.28	26.43	24.07
943-1053	455 044-26	3365-26	26	1.250	52.14	44.56	34.35	32.17
943-1054	455 044-34	3365-34	34	1.650	68.19	48.28	44.94	42.09
943-1055	455 044-40	3365-40	40	1.950	80.22	68.56	52.86	49.51
943-1056	455 044-50	3365-50	50	2.450	100.28	85.70	65.30	61.88

* is all Gray, not color coded.

STANDARD COLOR CODE FOR ALL SPECTRA-STRIP BONDED AND 3C CABLE

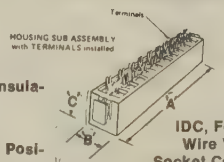
Spectra-Strip color-coded cables include the following colors in series: Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White and Black (repeat).



NEW!

INSULATION DISPLACEMENT CONNECTORS

- Visual Inspection of Proper Cable Alignment
- Skewed Contacts Apply Scissors Action to Insulation, Making Perfect Strips Every Time.
- Reliable Contact has Two Post Contact Areas
- Cover Contains Cable Guides Which Provide Positive Cable Alignment

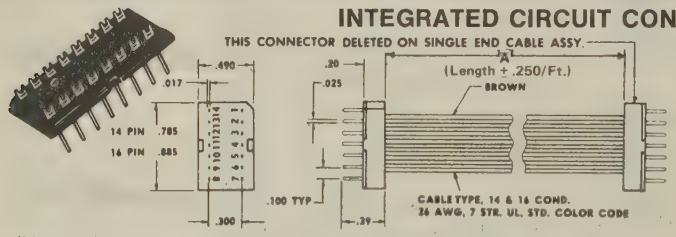


IDC, Female Wire Wrap Socket Connector

FULLY COMPATIBLE WITH BERG, 3M, ANSLEY AND AMP

Stock No.	Mfr's Type	No. of Contacts	Dimensions (In.) 'A'	'B'	'C'	Per Pk/5 1-4	5-9	10-Up
943-1201	SS-800-187	50	2.680	.235	.475	23.30	21.34	19.81
943-1202	SS-800-188	40	2.180	.235	.475	20.46	18.74	17.40
943-1203	SS-800-189	34	1.880	.235	.475	17.95	16.45	15.27
943-1204	SS-800-190	26	1.480	.235	.475	14.11	12.93	12.00
943-1205	SS-800-191	20	1.180	.235	.475	10.44	9.56	8.88

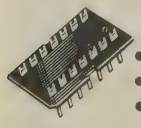
INTEGRATED CIRCUIT CONNECTORS AND ASSEMBLIES



Flat ribbon cable assemblies with 14- or 16-pin dual-in-line IC connectors at one or both ends. IC harness assemblies offer predictable, uniform capacitance and impedance. These assemblies make otherwise complicated and costly bussing and crossovers between printed circuit boards, mother boards, backplanes and other IC circuitry efficient, fast, simple and inexpensive. Feature 26 AWG, 7-strand wire to meet **MIL-W-16878D,** latest revision, Type B. Operating temperature range of −54°C to +105°C. Standard 10-color coding available. Top entry. When ordering, include manufacturer's type number.

Stock No.	Mfr's Type	Pins	No. of Ends with Conn.	Length Inches	EACH 1-49	50-99	100-Up
943R1150	5132-012	14	2	12	4.03	3.22	2.70
943R1151	5132-024	14	2	24	4.33	3.46	2.89
943-1152	5132-036	14	2	36	4.88	3.90	3.26
943-1153	5132-048	14	2	48	4.93	3.94	3.29
943R1154	5142-012	16	2	12	4.43	3.54	2.96
943R1155	5142-024	16	2	24	4.78	3.82	3.19
943-1156	5142-036	16	2	36	5.13	4.10	3.42
943-1157	5142-048	16	2	48	5.48	4.38	3.66
943-1158	5131-012	14	1	12	2.18	1.74	1.45
943-1159	5131-024	14	1	24	2.48	1.98	1.65
943-1160	5131-036	14	1	36	2.78	2.22	1.85
943-1161	5131-048	14	1	48	3.08	2.46	2.05
943-1162	5141-012	16	1	12	2.43	1.94	1.62
943R1163	5141-024	16	1	24	2.78	2.22	1.85
943-1164	5141-036	16	1	36	3.13	2.50	2.09
943R1165	5141-048	16	1	48	3.48	2.78	2.32

14- AND 16-PIN MALE DIP INTEGRATED CIRCUIT CONNECTORS



- Available in Square, Rectangle Pin Type
- Also Available in Side Entry Cap
- Meets MIL-C-45204, Type II Specifications

High reliability IC connectors have permanent molded-in contact that will not loosen or press out. Pins are .017″ x .017″ sq. or .017″ x .025″ rectangle, spring brass gold over nickel plate to **MIL-C-45204, Type II.** Connector is glass filled nylon. Standard .100″ x .300″ IC pin spacing. Soldered, "flame-retardant" connectors. When ordering, specify Manufacturer's Type and Stock No.

Stock No.	Mfr's Type	No. of Pins	Pin Type	EACH 1-49	50-99	100-499	500-Up
943R0060	800-031	14	Square	.53	.47	.43	.36
943R0061	800-032	16	Square	.53	.47	.43	.36
943R0062	800-033	14	Rectangle	.60	.54	.48	.41
943R0063	800-034	16	Rectangle	.60	.54	.48	.41
943R1040	300-590	14-pin Top	Side Entry Cap	.23	.18	.15	.13
943R1041	300-591	16-pin Top	Side Entry Cap	.23	.18	.15	.13

Alec Electron Says – Allied's "Guide" Is the "Yellow Pages" of Electronics

Allied Shrinkable Tubing

ALLIED "FIT®" SHRINKABLE PRODUCTS

YOUR CHOICE OF: • Surface-Irradiated Polyolefin • Semi-Rigid Kynar™ • Irradiated Polyolefin • Irradiated Polyvinyl Chloride • Teflon FEP

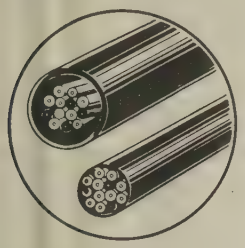
AFIT Type	Characteristics
AFIT-105	Irradiated Polyvinyl Chloride (PVC): flexible and resistant to abrasion. Good insulation properties. Color: Black only.
AFIT-221	Irradiated Polyolefin: flexible, abrasion resistant, non-flammable. Available from stock in black, red, white.
AFIT-300	Surface irradiated Polyolefin: outer wall shrinks, inner wall melts. Moistureproof; high mechanical strength.
AFIT-350	Semi-rigid Kynar: non-flammable tough fluorocarbon, high temperature solvent resistant. Non-flammable, won't cold flow or melt. Color: clear.
AFIT-400	Teflon FEP: 400°C operating temperature; especially designed for use with heat sensitive components, solid-state devices, solder joints without damage. Transparent.

AFIT®-105 IRRADIATED PVC FLEXIBLE TUBING

- **Available in a Wide Range of Sizes from 3/64" to 2"**
- **Shrinks in Only 7 Seconds when Heated to 325°F**
- **Flexible and Resistant to Abrasion**
- **Choose 25' Coils, 100' Coils or Package Assortments**

Provides snug flexible insulation. Excellent for insulation over splices. Supplied at "Min. I.D." size; shrinks to *"Recov. I.D." size in only 7 seconds when heated to 325°F. Available from stock in Black. Av. shpg. wt. per 100-ft. coil, 1½ lbs. Inquire for prices on larger quantities or other colors than those shown in table below.

708R3801. FIT-105-MS-1 Assortment. Contains ten 6-in. lengths each of six sizes from 3/64 through 1/4-in. (60 pieces). Shpg wt. 1/2 lb. ..... **Each 10.34**
708-3802. FIT-105-MS-2 Assortment. Contains ten 6-in. lengths each of four sizes from 3/8 through 1-in. (40 pieces). Shpg. wt. 1/2 lb. ..... **Each 14.55**



Shrinkage of 50% on Application of Heat—Ideally Suited for Insulating Components and Cables with a Wide Variation in Shape and Diameter—Forms a Permanent, Tight-Fitting Mechanical Bond

Size	Min. I.D.	Recov. I.D.*	Wall Thick.	Allied Type	Equiv.	Stock No.	Wt., Lbs.	Per 25' Coil	Stock No.	Wt., Lbs.	Per 100' Coil
3/64"	.046"	.023"	.020"	AFIT-105	FIT-105	708-3804	.1	5.98	.....	.....	.....
1/16"	.062"	.031"	.020"	AFIT-105	FIT-105	708R3810	.1	6.28	708-3813	.3	14.98
3/32"	.093"	.046"	.020"	AFIT-105	FIT-105	708R3817	.1	7.03	708-3820	.5	15.93
1/8"	.125"	.062"	.020"	AFIT-105	FIT-105	708R3823	.2	7.38	708R3827	1.1	17.03
3/16"	.197"	.093"	.025"	AFIT-105	FIT-105	708R3830	.3	8.73	708R3833	1.4	20.54
1/4"	.250"	.125"	.025"	AFIT-105	FIT-105	708R3837	.4	10.55	708R3840	1.4	25.52
3/8"	.375"	.187"	.030"	AFIT-105	FIT-105	708R3843	.5	11.60	708R3847	2.0	27.69
1/2"	.500"	.250"	.030"	AFIT-105	FIT-105	708R3850	.8	12.95	708-3853	4.5	30.91
3/4"	.750"	.375"	.035"	AFIT-105	FIT-105	708R3857	1.3	12.88	708-3860	5.0	41.63
1"	1.000"	.500"	.040"	AFIT-105	FIT-105	708R3863	2.2	15.80	.....	.....	.....
1½"	1.500"	.750"	.045"	AFIT-105	FIT-105	708-3867	3.9	26.78	.....	.....	.....
2"	2.000"	1.000"	.050"	AFIT-105	FIT-105	708-3870	5.6	38.88	.....	.....	.....

AFIT®-300 SURFACE-IRRADIATED POLYOLEFIN TUBING

- **Outer Wall Shrinks at 275°F while Inner Wall Melts and Flows**
- **Provides a Tough, Moistureproof Encapsulating Jacket**
- **Excellent for Encapsulation of Components, Electrical Cable Junctions and Splices, as a Mechanical or Vibration Shield**

For permanent, moistureproof encapsulation of components, cables, splices, etc. When a temperature of 275°F is applied, outer wall shrinks while the inner wall melts and flows, eliminating voids and providing moistureproof encapsulation. Supplied at "Min. I.D." size; shrinks to "Recov. I.D." with use of hot air gun, radiant heat, hot liquids. *Indicates heavy-walled tubing for use where much meltable material is required. Color coded by size. *Available in 4-foot lengths or 6-inch lengths.* Shpg. wt.: 4-ft. *lengths*, 1½ lbs.; 6-in., 4 oz.

Size	Color	Min. I.D.	Recov. I.D.	Wall Thick.	Allied No.	Equiv.	4-FOOT LENGTHS Stock No.	Lengths Per Pkg.	PER PKG.	6-INCH LENGTHS Stock No.	Lgths. Per Box	PER BOX
1/8"	Brown	.125"	.023"	.038"	AFIT-300	FIT-300	708-4110	25	64.06	708R4105	14	11.80
3/16"	Gray	.060"	.012"	.043"	AFIT-300	FIT-300	...	...	...	708-4115	16	11.80
1/4"	White	.080"	.015"	.047"	AFIT-300	FIT-300	...	...	...	708R4125	10	11.80
3/8"	Red	.375"	.135"	.050"	AFIT-300	FIT-300	...	...	...	708-4145	8	11.80
1/2"	Blue	.500"	.195"	.055"	AFIT-300	FIT-300	708-4160	5	25.60	708-4155	6	11.80
3/4"	Yellow	.750"	.313"	.065"	AFIT-300	FIT-300	...	...	...	708-4165	4	11.80
3/10"	Blue	.300"	.050"	.100"*	AFIT-300	FIT-300	...	...	...	708-4135	4	11.80

AFIT®-221 POLYOLEFIN SHRINKABLE TUBING

- **Shrinks 50% (2:1 Ratio) with 5% Longitudinal Shrinkage**
- **Irradiated, Thermally Stable, Modified Polyolefin Base**
- **Will Not Cold-Flow or Melt, but Retains Form Stability**
- **Available in a Wide Range of Colors and Sizes**

Replaces FIT-275. Shrinks (2:1) to *Recovered Inside Diameter in just 7 seconds. An all-purpose polyolefin extruded tubing in an expanded form. Slips over irregularly shaped material. When temperature of approx. 275°F is applied for 7 seconds, it returns to predetermined size. *Select color desired, read down column for size to complete Stock No.*

FIT-221 Packaged Assortments. 6" lengths, assorted colors. Wt. ½ lb.
708R3901. FIT-221MS1. 3/64 through 3/16" (30 lengths) ..... **Each 9.20**
708R3902. FIT-221MS2. 1/4 through 3/4" (16 lengths) ..... **Each 12.31**

4-FOOT LENGTHS (Av. shpg. wt. 1½ lbs.)

Stock No.	Black	Red	White	Allied No.	Equiv.	Size	Min. I.D.	Recov. I.D.*	Wall Thick	Lgths. Per Box	PER BOX
708X	-3916	...	...	AFIT-221	FIT-221	1/16"	.062"	.031"	.017"	25	15.03
708X	-3924	...	-3926	AFIT-221	FIT-221	3/32"	.093"	.046"	.020"	25	17.45
708X	R3931	-3932	-3933	AFIT-221	FIT-221	1/8"	.125"	.062"	.020"	25	18.52
708X	R3939	-3940	-3941	AFIT-221	FIT-221	3/16"	.191"	.089"	.020"	25	22.46
708X	R3947	...	-3949	AFIT-221	FIT-221	1/4"	.250"	.125"	.025"	25	28.39
708X	R3955	...	...	AFIT-221	FIT-221	3/8"	.378"	178"	.025"	25	31.56
708X	-3963	...	...	AFIT-221	FIT-221	1/2"	500"	.250"	.025"	5	10.68
708X	-3971	...	...	AFIT-221	FIT-221	3/4"	.750"	.375"	.025"	5	14.33
708X	-3979	-3980	...	AFIT-221	FIT-221	1"	1.000"	.500"	.035"	5	13.36
708X	-3987	...	...	AFIT-221	FIT-221	1 1/2"	1.500"	.750"	.040"	5	21.01

6-INCH LENGTHS (Av. shpg. wt. 4 oz.)

Stock No.	Black	Red	White	Allied No.	Equiv.	Size	Min. I.D.	Recov. I.D.*	Wall Thick	Lgths. Per Box	PER BOX
708	-3904	...	-3906	AFIT-221	FIT-221	3/64"	.050"	.023"	.016"	40	8.25
708	R3912	-3913	-3914	AFIT-221	FIT-221	1/16"	.062"	.031"	.017"	36	8.25
708	R3920	-3921	-3922	AFIT-221	FIT-221	3/32"	.093"	.046"	.020"	32	8.25
708	R3927	-3928	-3929	AFIT-221	FIT-221	1/8"	.125"	062"	.020"	28	8.25
708	R3935	-3936	-3937	AFIT-221	FIT-221	3/16"	.191"	.089"	.020"	24	8.25
708	R3943	-3944	-3945	AFIT-221	FIT-221	1/4"	.250"	.125"	.025"	20	8.25
708	R3951	-3952	-3953	AFIT-221	FIT-221	3/8"	378"	.178"	.025"	16	8.25
708	-3959	-3960	...	AFIT-221	FIT-221	1/2"	.500"	.250"	.025"	14	8.25
708	-3967	...	...	AFIT-221	FIT-221	3/4"	.750"	375"	.030"	12	8.25
708	-3975	...	-3977	AFIT-221	FIT-221	1"	1.000"	.500"	.035"	8	8.25

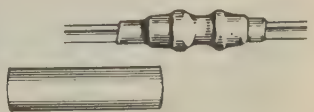
MOLDED AFIT®-CAPS

Shrink when Heated to 275°F to Form a Rigid, Permanent Encapsulation

When heated, shrink to form permanent encapsulation without molding, potting, special tools. Supplied at "Min. I.D.", shrinks to "Recov. I.D." when heated to 275°F. *Pkg. of 25 only.* 6 oz.

Stock No.	Allied No.	Alpha Equiv.	Min. I.D.	Recov. I.D.	Wall Thick.	Nom. Lgth.	Color	PER PKG.
708-3722	ACAP-22	CAP-22	.25"	.12"	.05"	1.15"	Black	18.97

AFIT®-400 FEP TEFLON HEAT SHRINKABLE TUBING



Offers all the outstanding electrical, chemical and mechanical advantages of Teflon tubing without drawbacks of high shrinkage temperature requirements. Applied as natural, transparent tubing—requires 200-355°F heat to shrink 50% (2:1 ratio). Natural color. 100-ft package includes 24 pieces in minimum 3-ft lengths, 5 pieces in minimum 1-ft. lengths.

Stock No.	Allied No.	Alpha Equiv.	AWG Size	Expanded I.D.	Recov. I.D.	Nom. Wall Thickness	PKG.
708-4393	AFIT-400-18	FIT-400-18	18	.061"	.049"	.008"	37.78
708-4394	AFIT-400-16	FIT-400-16	16	.076"	.061"	.009"	42.29

AFIT®-350 IRRADIATED KYNAR™ SHRINKABLE TUBING

Tough semi-rigid polyvinylidene fluoride that can be repeatedly flexed, bent or twisted without losing its mechanical or electrical strength. Withstands continuous operating temperatures of −55°F to +175°F. Supplied at Minimum Inside Diameter (Min. I.D.). Size shrinks to Recovery Inside Diameter (Recov. I.D.) when heated to 347°F. 2:1 shrinkage ratio. Longitudinal shrinkage only 5%. Non-flammable, will never cold flow or melt. Clear only. Av. shpg. wt.: 6" lengths, 4 oz.

Size	Min. I.D.	Recov. I.D.	Recov. Wall Thickness	Allied No.	Alpha Equiv.	6-INCH LENGTHS Stock No.	Lgths. Per Box	PER BOX
3/64"	046"	023"	.010"	AFIT-350	FIT-350	708-4303	32	11.28
1/16"	063"	.031"	010"	AFIT-350	FIT-350	708-4309	28	11.28
3/32"	.093"	046"	010"	AFIT-350	FIT-350	708-4315	24	11.28
1/8"	125"	062"	.010"	AFIT-350	FIT-350	708-4321	20	11.28
3/16"	187"	093"	010"	AFIT-350	FIT-350	708-4327	16	11.28
1/4"	250"	125	012"	AFIT-350	FIT-350	708-4333	12	11.28
3/8"	375"	187"	012"	AFIT-350	FIT-350	708-4339	8	11.28

Larger Quantity Price Breaks Available on Request

Allied Flexible Tubing, Heat Guns and Blowers

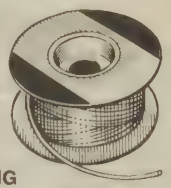
AFIT® SHRINKABLE TUBING KIT

Popular Assortment of Allied FIT Tubing Types in Compact, Plastic Carrying Case

Engineering or prototype sampler kit. Contains a variety of sizes and colors of all Allied FIT shrinkable tubing types. Packaged in a handy compartmented plastic case. FIT tubings are supplied in the expanded state. Application of heat shrinks the tubing to a skin-tight covering. Especially useful in lab, experimentor's shop. Wt. 2 lbs.

708R3775 ..... **Each 29.23**

ATFT TEFLON EXTRUDED FLEXIBLE TUBING



High resistance to fatigue and repetitive stresses. High temperature "Class C" thin, flexible insulation will not melt or flow. Spaghetti extruded from pure teflon TFE fluorocarbon resins—free of contaminants, stresses; uniform density, color. Nonflammable; unharmed by soldering irons; moistureproof; chemically inert. Dielectric strength: 500-1000 V/mil. No variation of electrical properties. —67° to +250°C. 60 Hz to 100 MHz. Meets **MIL-I-22129C, AMS 3651, 3653; Fed. Spec. P-403A.** Natural color. See listings at right. Av. wt. 5 oz.

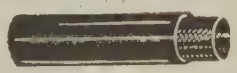
ATFT-200 THIN-WALL TEFLON TUBING

Stock No.	Allied No.	Equiv. Type	AWG Size	Nom. I.D.	Nominal Wall Thick.	100' COIL 1-4	100' COIL 5-Up
708-4930	ATFT-200/30	TFT-200	30	.012"	.009"	13.13	10.50
708-4928	ATFT-200/28	TFT-200	28	.015"	.009"	13.75	11.00
708-4926	ATFT-200/26	TFT-200	26	.018"	.010"	14.25	11.40
708-4294	ATFT-200/24	TFT-200	24	.022"	.010"	10.65	9.06
708R4922	ATFT-200/22	TFT-200	22	.027"	.010"	11.07	9.41
708-4920	ATFT-200/20	TFT-200	20	.034"	.012"	13.58	11.54
708-4918	ATFT-200/18	TFT-200	18	.042"	.012"	15.03	12.78
708-4916	ATFT-200/16	TFT-200	16	.053"	.012"	15.87	13.49
708-4914	ATFT-200/14	TFT-200	14	.066"	.012"	18.57	15.97
708-4911	ATFT-200/11	TFT-200	11	.095"	.012"	25.05	21.30
708-4910	ATFT-200/10	TFT-200	10	.106"	.012"	27.97	23.70
708-4907	ATFT-200/7	TFT-200	7	.148"	.015"	37.96	32.28

ATFT-250 STANDARD-WALL TEFLON TUBING

Stock No.	Allied No.	Equiv. Type	AWG Size	Nom. I.D.	Nominal Wall Thick.	100' COIL 1-4	100' COIL 5-Up
708-5024	ATFT-250/24	TFT-250	24	.022"	.012"	12.11	10.30
708-5022	ATFT-250/22	TFT-250	22	.027"	.012"	12.32	10.48
708-5020	ATFT-250/20	TFT-250	20	.034"	.016"	16.70	14.20
708-5018	ATFT-250/18	TFT-350	18	.042"	.016"	17.75	15.09
708-5014	ATFT-250/14	TFT-350	14	.066"	.016"	22.34	19.00
708-5012	ATFT-250/12	TFT-350	12	.085"	.016"	26.93	22.90

TYPE APIF-30 PLASTIC-IMPREGNATED FIBERGLASS TUBING



Tough and pliable—provides maximum electrical characteristics, chemical resistance, heat stability, abrasion resistance. Fiberglass base sleeving, coated with plastic insulation. For continuous operation up to 130°C. Will not support combustion. Insulation will not peel, crack or lose dielectric values. Conforms to **MIL-L-3190B, Grade B.** Av. wt. 2 lbs.

Stock No.	Allied No.	Equiv. Type	AWG Size	Wall Thickness Max.	Wall Thickness Min.	Approx. I.D.	100' COIL
708-4524	APIF-130/24	PIF-130	24	.022"	.016"	.022"	9.38
708-4520	APIF-130/20	PIF-130	20	.022"	.016"	.034"	9.55
708-4518	APIF-130/18	PIF-130	18	.022"	.016"	.042"	9.48
708-4516	APIF-130/16	PIF-130	16	.028"	.020"	.053"	9.80
708-4514	APIF-130/14	PIF-130	14	.028"	.020"	.066"	10.40
708-4512	APIF-130/12	PIF-130	12	.028"	.020"	.085"	10.68
708-4510	APIF-130/10	PIF-130	10	.028"	.020"	.106"	11.57
708-4506	APIF-130/06	PIF-130	6	.028"	.020"	.166"	14.63
708-4504	APIF-130/04	PIF-130	4	.036"	.026"	.208"	11.54
708-4502	APIF-130/02	PIF-130	2	.036"	.026"	.234"	14.36

APVC-105 PLASTIC TUBING

ASTM D-876, D-9222, MIL-I-6310 Type F, Form U, Grade C, Class 1, Category 1 general-purpose polyvinylchloride tubing rated for temperatures not exceeding 105°C. High dielectric strength; resistant to abrasion, heat, oil, chemical corrosion and fungi. Indefinite shelf-life. Highly flexible under all environmental conditions. In black or clear. U.L. listed. Furnished in 100' coils.

Stock No. Clear	Stock No. Black	Mfr's Type-Size	I.D.	Wall Thk.	100' Coil EACH
708-4728	708-4726	APVC105-24	.022	.013	3.10
708-4720	708-4718	APVC105-22	.027	.012	3.15
708-4712	798-4710	APVC105-20	.034	.016	3.20
708-4703	708-4701	APVC105-18	.042	.016	3.33
708-4696	708-4694	APVC105-16	.053	.016	3.45
708-4687	708-4685	APVC105-14	.066	.016	3.58
708-4680	708-4678	APVC105-12	.085	.016	3.70
708-4672	708-4670	APVC105-10	.106	.016	3.95
708-4663	708-4661	APVC105-8	.133	.020	4.95
708-4657	708-4655	APVC105-6	.166	.020	5.35
708-4650	708-4648	APVC105-4	.208	.020	5.90
708-4642	708-4640	APVC105-2	.263	.020	6.83
.....	708-4604	APVC105-¼	.312	.025	9.38
708-4611	708-4610	APVC105-⅜	.375	.025	10.70
708-4616	708-4615	APVC105-½	.500	.025	11.75
.....	708-4621	APVC105-⅝	.625	.030	12.00

ESTIMATOR CHART FOR CUT WIRE AND TUBING PIECES

Length Inches	No. of Feet Required per 1,000 pieces	No. of pieces in 1,000-Ft.	Length Inches	No. of Feet Required per 1,000 pieces	No. of pieces in 1,000-Ft.
¼	20.9	48,000	6¼	520.8	1,900
½	41.7	24,000	6½	541.7	1,825
¾	62.5	16,000	6¾	562.5	1,775
1	83.4	12,000	7	583.4	1,700
1¼	104.2	9,600	7¼	604.2	1,650
1½	125.0	8,000	7½	625.0	1,600
1¾	145.9	6,900	7¾	645.8	1,550
2	166.7	6,000	8	666.7	1,500
2¼	187.5	5,350	8¼	687.5	1,450
2½	208.4	4,800	8½	708.4	1,400
2¾	229.2	4,400	8¾	729.2	1,350
3	250.0	4,000	9	750.0	1,325
3¼	270.9	3,700	9¼	770.8	1,275
3½	291.7	3,450	9½	791.7	1,250
3¾	312.5	3,200	9¾	812.5	1,225
4	333.4	3,000	10	833.3	1,200
4¼	354.2	2,800	10¼	854.1	1,150
4½	375.0	2,650	10½	875.0	1,125
4¾	395.9	2,525	10¾	895.9	1,100
5	416.7	2,400	11	916.7	1,075
5¼	437.5	2,275	11¼	937.4	1,050
5½	458.4	2,175	11½	958.3	1,025
5¾	479.2	2,075	11¾	979.9	1,000
6	500.0	2,000	12	1,000.	1,000

AIR HEAT BLOWERS

Maintain continuous flow of heated air wherever you need it. For portable use or permanent mounting. Overall dimensions: Type AH-301, 9"; Type AH-501, 12". Both include 8-ft. cord. For 110-120 VAC.

Stock No.	Mfr's Type	Amps	Temp. (F)	Wt. Lbs.	EACH
861-1600	AH-301	10	300°	7	59.95
861-1601	AH-501	14	500°	8¼	62.95

Provides Air Wherever Needed . . . Permanent or Portable Mount

HEAT GUN BLOWERS

Choose from two heat gun models that deliver instant heat up to 1000°F without the danger of an open flame. Perfect for use with "shrinkable" tubing, forming plastics, etc. Type HG-501 produces heat from 500 to 750°F. Type HG-751 from 750 to 1000°F. Both with 8-ft. neoprene cord. 115 VAC. Shpg. wt. ¼ lb.

861-1604. Type HG-501 Heat Gun. 14 amps. 5 lbs. **54.90**
861-1605. Type HG-751 Heat Gun. 20 amps. 5 lbs. **64.90**
861-1606. Type 100 Nozzle Adapter. Shpg. wt. ¼ lb. **5.53**
861-1607. Type 145 Baffle Plate. Tub. to ¼" dia.* **5.18**
861-1608. Type 150 Baffle Plate. Tub. to 1¼" dia.* **5.53**

Deliver Instant Heat without Open Flame

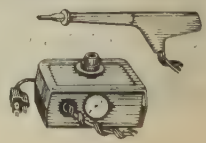
"MITE" FLAMELESS HEAT GUN

TYPE 10008. Only 2 lbs. (with nozzle) and really versatile! Available with three snap-in heat range nozzles: silver (incl.) provides 650°F for most shrinkables; optional blue nozzle provides 500°F for Mylar®; optional black nozzle provides 800°F for Teflon®. Brushless-type shaded-pole motor rated 3300 rpm. Air cooled barrel and 3-conductor grounded cord for maximum safety. Draws only 5.4 amps of power. Deflector adaptor, silver nozzle, 7-ft. cord incl. 120 VAC.

861-1610. Shpg. wt. 2 lbs ..... **Each 44.52**
861-1615. Type 20012 Nozzle. 500°F. Wt. 8 oz. **Each 8.75**
861-1620. Type 20014 Nozzle. 800°F. Wt. 8 oz. **Each 8.75**

Lightweight and Perfectly Balanced for Ease of Handling

HOT AIR PENCIL



MODEL FG-4. For precise selective heating of small diameter tubing and sleeves. Heat may be concentrated exactly where it is required, for labor-saving installation and repair. Allows operator to work in crowded circuit areas without damaging heat-sensitive components and wire. Uses factory or shop compressed air supply. Stand, regulator, needle point tip and reflectors incl. Airflow, 60 psig, min. 4 cfm. 120 VAC. Shpg. wt. 1 lb.

708-3773 ..... **Each 186.94**

MINIATURE FIT® GUN

MODEL FG-1. For shrinking soldering-sleeves and all FIT tubing. Durable, electric motor driven unit delivers high volume of air to nozzle. Easily replaceable heat elements. Three-position switch. Lightweight—use as a bench or hand unit. Rated at 7 amps, 115 VAC. Typical temperatures: 175°C (347°F) without adapter; 205°C (401°F) with adapter; 203°C (446°F) with tubing reflector. With all accessories.

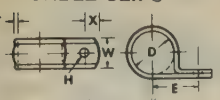
708-3770 ..... **Each 68.54**

Includes All Accessories

Cable Accessories and Lacing Tape

ALLIED CABLE ACCESSORIES

CABLE CLIPS



T=.060 W=½" H=1¾₆₄" X=7⁄₃₂"

Ethyl cellulose: Meets MIL-242A, MIL Std. 242B(Ships), MS 3914(Ord). Temp. −40° to +185°F. **Nylon:** Meets MIL-Std.-24E; MS-30914(Ord); MIL-C-21565(NAS); MIL-P-17091-B; MIL-P-20693; MIL-P-17091A. 6 oz. each, pkg. 100.

CELLULOSE

Stock No. 920-	Mfr Type	D	E	PRICE PER 100 1-24	25-99	100-Up
8925	8925	1/8	.360	2.84	2.27	1.89
8926	8926	3/16	.423	2.97	2.38	1.98
8927	8927	1/4	.457	3.11	2.48	2.07
8928	8928	5/16	.498	3.24	2.59	2.16
8929	8929	3/8	.529	3.38	2.70	2.25
8930	8930	7/16	.560	3.51	2.81	2.34
8931	8931	1/2	.592	3.65	2.92	2.43
8933	8933	5/8	.654	4.05	3.24	2.71
8934	8934	11/16	.752	4.46	3.56	2.98
8935	8935	3/4	.783	4.73	3.78	3.16
8937	8937	1	.908	5.27	4.21	3.52
NYLON						
8940	8940	1/8	.360	3.11	2.48	2.07
8941	8941	3/16	.423	3.24	2.59	2.16
8942	8942	1/4	.457	3.38	2.70	2.25
8943	8943	5/16	.495	3.51	2.81	2.34
8944	8944	3/8	.529	3.65	2.92	2.43
8945	8945	7/16	.560	3.78	3.02	2.53
8946	8946	1/2	.592	3.92	3.13	2.61
8948	8948	5/8	.654	4.32	3.46	2.89
8950	8950	3/4	.783	4.73	3.78	3.16
8952	8952	1	.908	5.27	4.21	3.52

TWIST-LOK REUSEABLE PLASTIC TIES

Just slip in place. Hold bundles firmly. Reuseable white nylon. 4 lengths. .2 to .8" bundles.

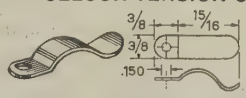
Stock No.	Mfr's Type	Approx. O'all Ht.	Wire Bundle Diam.	PRICE PER 100
911-7000	TL-250	.900"	.2-.3"	2.12
911-7010	TL-350	1.032"	.3-.4"	2.29
911-7020	TL-450	1.200"	.4-.5"	2.44
911-7030	TL-750	1.550"	.7-.8"	2.95

PLASTIC CABLE TIES

Bind cables into harness. 5" white nylon. Pkgs. of 1000 only. 4 oz. per pkg.

920-8962. Type 8962. 1-24 ..... Each 3.10
25-99 ..... Each 2.48 100-Up ..... Each 2.07

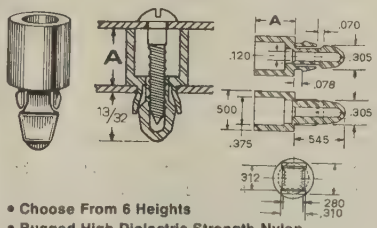
CELCON TENSION CLIPS



Strong, yet elastic, plastic clips easily fastened, hold cable, wire, tubing, panels, glass, signs. Black or white. Pkg. 100.

911-7050. Type 30-1. Price per 100 ..... 4.37

SPACER NUT



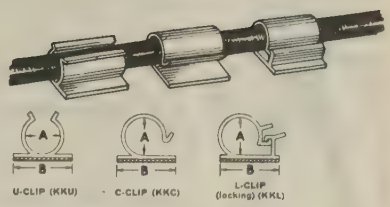
- **Choose From 6 Heights**
- **Rugged High Dielectric Strength Nylon**

High dielectric strength nylon expanding nut in 6 heights. Spaces, insulates, fastens. Insert with fingertip pressure, 2 legs hold nut securely. All sizes accept #8 self-tapping screws.

Stock No.	Mfr's Type	Nominal Spacing Dim. A	PRICE PER 100
911-7060	SN-125	.125"	3.32
911-7065	SN-187	.187"	3.40
911-7070	SN-250	.250"	3.53
911-7075	SN-312	.312"	3.60
911-7080	SN-375	.375"	4.25
911-7085	SN-500	.500"	5.00

KWIK-KLIP

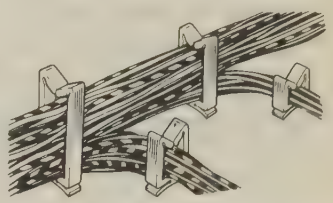
Offer convenient, secure fastening for a variety of electrical applications. Strip off protective backing and press in place permanently. For anchoring cable, tubing, pipe, rod. Constructed of strong, resilient PVC. KKL is locking type. Shpg. wt. 10 oz.



Stock No.	Mfr's Type	Diameter, Inches	W x L Inches	PER PKG. OF 100 1-9	10-24	25-Up
911-2042	KKU-2	1/8	3/4x3/4	10.87	7.65	6.08
911R2044	KKU-4	1/4	3/4x3/4	12.37	8.70	6.91
911-2046	KKU-6	3/8	3/4x3/4	13.83	9.71	7.73
911-2048	KKU-8	1/2	1x1	15.33	10.79	8.59
911-2052	KKU-12	3/4	1x1	21.85	15.40	12.23
911-2002	KKC-2	1/8	3/4x3/4	10.90	7.67	6.10
911R2004	KKC-4	1/4	3/4x3/4	12.35	8.66	6.88
911-2005	KKC-5	5/16	3/4x3/4	13.05	9.17	7.30
911R2006	KKC-6	3/8	3/4x3/4	13.79	9.68	7.72
911-2008	KKC-8	1/2	1x1	15.33	10.79	8.79
911-2012	KKC-12	3/4	1x1	21.85	15.40	12.23
911R2024	KKL-4	1/4	3/4x3/4	13.08	9.19	7.33
911R2028	KKL-8	1/2	1x1	16.48	11.59	9.21
911R2032	KKL-12	3/4	1x1	23.69	16.69	13.25

WIRE SADDLES

Strong, tough nylon saddles used to channel a group or bundle of wires over a given course. Have a pointed insert that is compressed and easily snapped into punched or drilled .187" diameter holes in a metal chassis where they lock firmly and permanently in place. May be mounted in any position; no tools needed.



Stock No.	Mfr's Type	Inside Height, Inches	Outside Height Inches	PER PKG. OF 100 1-9	10-24	25-Up
911-5091	WS-1N	.225	.510	2.20	1.54	1.23
911R5092	WS-2N	.450	.715	2.21	1.55	1.24
911-5093	WS-3N	.800	1.070	2.99	2.10	1.67
911-5094	WS-4N	1.120	1.390	3.21	2.25	1.80

LACING TAPES AND HELI-TUBE

Type 805032W

Type 805032B

Nylon Lacing Tape: Flat-braided high-tenacity nylon yarn impregnated with micro-crystalline fungicidal wax or impregnations to meet military specifications. Avail. in 500-yard spools.

Polyester Lacing Tape: Flat-braided polyester yarn impregnated with special finishes to military specifications. Avail. 500-yd. spools.

Nylon Lacing Twine: Round twisted nylon fiber impregnated with microcrystalline fungicidal wax.

Finishes and coating for above: W—Wax, Mil Spec B. A microcrystalline fungicidal wax which exceeds military specifications, provides excellent knot retention and is suitable for either lacing or spot ties. **G**—Synthetic Rubber, Mil Spec C. A special coating of fungicidal synthetic elastomer. Outstanding knot holding characteristics. **A**—Synthetic Resin, Mil Spec E. Synthetic rubber-like resin formulated with fungicidal ingredients.

Type 805058W

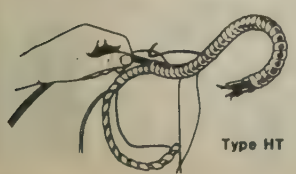
Type 805056B

Type 132

Type 807031B

Nylon Flat Braided Tape: Provides wider contact area with insulation. More flexible and easier to apply. 500 yds. each.

Finishes for above: MW: Microcrystalline wax with a melting point above 130°F with a fungicide which does not contain either copper or mercuric materials. **AM:** A thermoplastic synthetic resin with a melting point above 350°F for use where a "wax free" type with good knot tying qualities is specified.



Type HT

Heli-Tube Expandable Cable Harness: Plastic cable harness features strong gripping ability, excellent flexibility; protects against abrasion. Allows individual wire, taps of lead-offs to enter or break out of harness at any point. Made of clean, virgin resin. Wraps on like tape. Impermeable to moisture; resists chemicals, solvents; non-staining; non-toxic.

NYLON LACING TAPE MIL-T-43435 TYPE I

Stock No.	Mfr's Type	Tensile Str.	Color	W. Inch	Finish	L. Yds.	EACH
768-9107	805032W	50 lbs.	Natural	.090	A	500	13.75
768-9106	805032B	50 lbs.	Black	.090	A	500	16.63
768-9101	802534W	25 lbs.	Natural	.062	W	500	12.75
768-9100	802534B	25 lbs.	Black	.062	W	500	14.00
768-9109	805936W	50 lbs.	Natural	.090	W	500	13.75
768-9108	805036B	50 lbs.	Black	.090	W	500	15.83
768-9111	805040W	50 lbs.	Natural	.090	G	500	13.75
POLYESTER LACING TAPE MIL-T-43335 TYPE II							
768-9113	805058W	50 lbs.	Natural	.090	A	500	12.70
NYLON LACING TWINE MIL-T-713D TYPE P							
768-9117	807013B	70 lbs.	Natural	.039	W	550	16.43
768-9116	807013B	70 lbs.	Black	.039	W	550	16.43
768-9105	804814W	48 lbs.	Natural	.029	W	750	15.40
768-9103	803215W	32 lbs.	Natural	.025	W	1100	15.40

NYLON FLAT BRAIDED TAPE

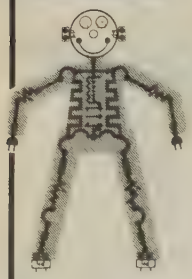
Stock No.	Mfr's Type	Tensile Str.	Width	Thickness	Finish	EACH
708-4406	134WHI	30 lbs.	1/16	.010	MW	14.37
708-4408	136BLK	50 lbs.	3/32	.014	MW	16.25
708-4409	136WHI	50 lbs.	3/32	.014	MW	15.00
708-4416	143WHI	50 lbs.	1/32	.014	AM	13.50

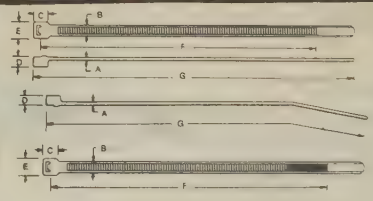
HELI-TUBE EXPANDABLE CABLE HARNESS

Stock No.	Mfr's Type	O.D. (In.)	Description	Per 100' Spool 1-9	10-24	25-Up
872R3301	HT1/8C	1/8	Clear Polyethylene	4.54	3.63	3.03
872R3303	HT1/4C	1/4		8.25	6.60	5.51
872R3305	HT3/8C	3/8		11.93	9.54	7.87
872R3307	HT1/2C	1/2		15.67	12.54	10.47
872-3371	HT1/8UR	1/8	Black	5.09	4.07	3.37
872-3373	HT1/4UR	1/4	Polyethylene (Ultraviolet Res.)	9.49	7.59	6.33
872-3377	HT1/2UR	1/2		12.39	10.53	9.28
872-3323	HT1/4FR	1/4	White Rulan (Fire Res.)	11.69	10.71	9.94
872-3327	HT1/2FR	1/2		26.97	24.71	22.93
872-3343	HT1/4N	1/4	Nylon (Natural)	13.61	11.57	10.84

Stock No.	Mfr's Type	O.D. (In.)	Description	Per 50' Spool 1-9	10-24	25-49	50-Up
872-3381	HT1/2UR-G	1/2	Gray Polyethylene	8.44	6.75	5.64	4.80

Wire Ties, Installation Tools and Wiring Duct

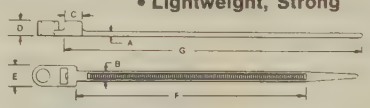




FASTRAPS™ WIRE TIES

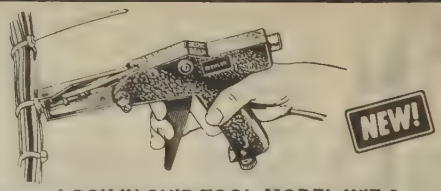
- Meet MIL Standards
- Molded Virgin Nylon
- Lightweight, Strong

Alec Electron



Low or High Tensile Strengths

Effective, easy and economical method of bundling wire harness, cable runs, etc. Molded virgin nylon provides lightweight, resistance to absorption, abrasion resistance, high dielectric strength, resistance to solvents. Meets MS3367, MIL-S-23190C. Styles: Standard Straight Tip (6006, heavy duty). Standard Bent Tip—Easy Thread (6005). Standard, Mtg. Hole (6008 standard, bent tip). * Indicates NOT QPL.



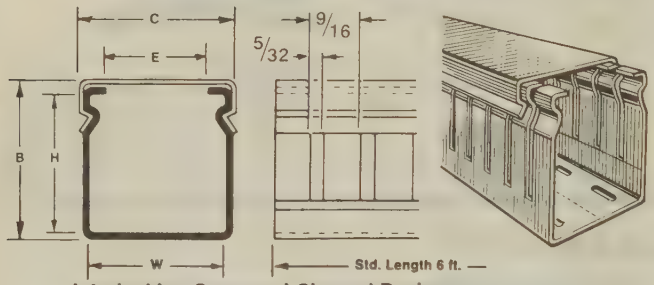
LOCK 'N SNIP TOOL MODEL WIT-2

Lock'n Snip automatic handgun installation tool tightens ties to preset tension and trims off excess. Rugged, yet lightweight to prevent user fatigue. Adjustable tension tightens ties automatically. Trims serrated ties flush for neat installations. Deposits waste when trigger is released. Tightens ties .1" to .51" wide.

911-0100. Model WIT-2.....Each 44.95

Stock No.	Mfr's Type	Min. Ten. Strg. (Lbs)	Bundle Max. Dia. In.	T&B Ty-Rap Cable Ties	Panduit Pan-Ty Sta-Strap	Military Specification Reference	Dimensions, Inches A	B	C	D	E	F	G	Mtg. Hole In.	PER PKG. 100 1-9	10-24	25-99	100-Up
801-0105	6005-350-NAT	18	⅛	TY-23M	PLT1M SST1M	MS3367-4	.040	.085	.163	.120	1.65	2.625	3.50	.....	2.45	2.10	1.63	1.32
801-0106	6005-400-NAT	18	¾	.....	PLT1M	.....	.045	.115	.190	.150	.253	3.375	4	.....	2.55	2.20	1.70	1.37
801-0107	6005-550-NAT	30	1½	TY-24M	PLT1.5M SST1.5M	MS3367-5	.055	.146	.220	.190	.260	4.45	5.5	.....	3.45	3.00	2.30	1.85
801-0108	6005-675-NAT	50	1¾	TY-25M	PLT2S SST2S	MS3367-1	.055	.190	.275	.220	.320	6.00	6.75	.....	4.23	3.65	2.81	2.27
801-0140	6005-1100-NAT	50	3	TY-26M	PLT3S SST3S	MS3367-7	.055	.190	.275	.180	.312	10.125	11	.....	8.75	7.55	5.85	4.71
801-0150	6005-1400-NAT	50	4	TY-28M	PLT4S SST4S	*MS3367-2	.055	.190	.275	.180	.312	13.125	14	.....	9.95	8.60	6.65	5.35
801-0109	6006-1400-NAT	120	3½	TY-27M	PLT4H	MS3367-3	.083	.310	.375	.300	.535	11.88	14	.....	17.32	15.75	10.84	8.73
801-0116	6008-675-NAT	50	1¾	TY-35M	PLC2S	.....	.055	.190	.275	.187	.300	6.00	6.75	.205	6.40	6.20	4.27	3.44

ELECTRO-DUCT® PLASTIC WIRING DUCT



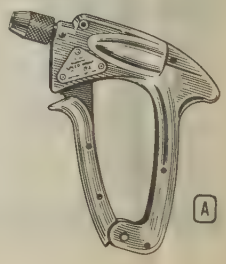
- Interlocking Cover and Channel Design
- Adhesive Mounting for Easy, Safe Drilling Alignment
- Immune to Most Environmental Hazards

High-impact, rigid vinyl duct will not peel, chip or crack, even under adverse conditions. Withstands temperatures up to 150°F. Resists oil, grease, salt solutions, most mildly concentrated acids and fungus. Completely non-flammable, warp-proof and non-brittle. Temporary adhesive mounting assures easy and safe drilling alignment. Simply peel off the adhesive covering, press duct into mounting panel and drill through, aided by the indented "drill hole starter." You achieve perfect alignment with no need to hold the duct in place with your hand. Interlocking cover and channel design provides snap-on, non-slip assembly to eliminate vibration slippage. Cover and channel forms firm, rigid duct. Snap-off plastic fingers permit enlarging slot for leadoffs of any size wire and/or wire bundles. Pre-scored for smooth, snap-off surface. Smooth, rounded edges on both channel and cover prevent cutting and abrasion during handling. Cover flange keeps lead-off wires positioned in center of duct. Open-slot design permits insertion or removal of wires with terminations attached, without deflecting the plastic fingers. Eliminates threading of wire through duct holes. Easy to cut using only a fine-toothed hand or power cutting tool. CSA approved. **Sold only in multiples of 6 feet.** Gray color.

Stock No.	Mfr's Type	Nom. WxH In.	Dimensions (Inches) B	H	C	W	E	Std. Pkg. Ft.	Shpg. Wt. Lbs./100	Price per 6' Piece 1-9	10-24	25-Up
787R1010	1010A-G	1x1	1 13/16	1	1 1/32	1	½	96	21	9.45	7.56	6.31
787-1020	1020A-G	1x2	2 1/32	2	1 1/32	1	½	90	32	12.60	10.08	8.41
787-1030	1030A-G	1x3	2 1/32	3	1 1/32	1	½	60	40	12.00	9.60	8.00
787-2010	2010A-G	2x1	1 13/16	1	2 1/32	2	1½	108	32	13.40	10.72	8.75
787-2020	2020A-G	2x2	2 3/16	2	2 1/32	2	1 17/32	54	47	14.63	11.70	9.77
787-2030	2030A-G	2x3	3¼	3	2 1/32	2	1 17/32	36	55	12.02	10.22	9.58
787-3020	3020A-G	3x2	2 3/16	2	3 1/32	3	2½	36	55	12.02	10.22	9.58
787-4030	4030A-G	4x3	3¼	3	4 5/16	4	3½	24	90	16.53	14.06	13.17

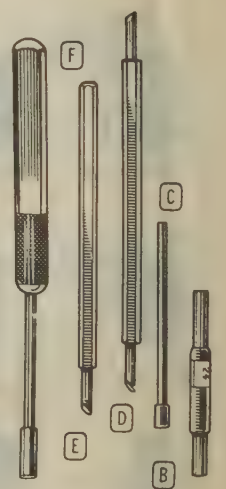
SPEED-WRAP TOOLS

- Wrapping Tools for Quick, Solderless Connections
- Unwrapping Tools for Easy Removal of Solderless Wrapped Connections



A TYPE G100/R-3278 SPEED-WRAP TOOL. Designed with a chuck nose piece to make full use of the full line of bits and sleeves made for power tools. Makes fast, perfect, solderless wrapped-wire electrical connections in less than 1/10 second. Uses interchangeable Coiltite bits and sleeves (listed below) that accommodate the proper size wire and terminals for any application.
825R-2001. 1-3.....Each 58.87 4-Up.....Each 47.00

B C COILTITE BITS AND SLEEVES. For use with Speed-Wrap tool above. Sleeves are insulated and minimize shorting of adjacent terminals (use in conjunction with bit).



B COILTITE SLEEVE

Wire Gauge	Stock No.	Mfr's Type	EACH 1-3	4-Up
#22-24	825-2015	P2224	9.15	7.32
#24-26	825-2016	P2426	9.15	7.32

C COILTITE BIT

#26	825R2012	KB26	16.22	13.80
#24	825-2011	KB24	16.22	13.80
#22	825-2010	KB22	16.22	13.80
#22, 24	825-2013	KB224	16.22	13.80

D TYPE UW2 HAND UNWRAPPING TOOL. For easy removal of solderless wrapped connections. For left or right hand operation. For #20 to #26 wire.
825R-2031. 1-3.....Each 13.60 4-Up.....Each 10.88

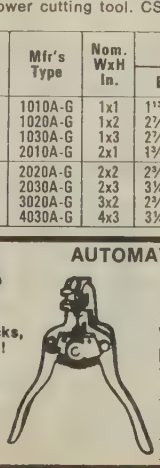
E TYPE UW1 HAND UNWRAPPING TOOL. As above, regular handle. For #20 to #25 wire.
825R-2030. 1-3.....Each 9.18 4-Up.....Each 7.34

F HAND WRAPPING TOOLS. For occasional connections. No bits, sleeves or special skills needed.
TYPE HW224. For #22 and #24 wire.
825R-2006. 1-3.....Each 19.10 4-Up.....Each 16.24
TYPE HW26. For #26 wire.
825R-2005. 1-3.....Each 18.17 4-Up.....Each 15.45

AUTOMATIC WIRE STRIPPER/CUTTER

NEW!

- No Nicks, Breaks!



Instantaneously strips wire ranging in size from #8 to #22 gauge. Cleanly removes insulation without nicking or breaking wire for smooth, professional quality work. Lightweight, yet extremely durable.

Stock No.	Mfr's Type	EACH 1-5	6-11	12-49	50-Up
910-1918	64-1918	7.95	7.40	7.00	6.60

3-WAY CRIMPING TOOL, TYPE 64-405

Crimps solderless terminals, cuts wire, strips insulation. With assorted terminals. Wt. 1½ lbs.
910-5903....Each 2.29

WIRE BENDING JIG TYPE 64-1960

Bends eyes, curves, spirals. For dozens of useful jobs. Accepts up to ¼" diameter wide. Shpg. wt. ¼ lbs.
910-5920....Each 1.59

Contact Your Nearest Allied Electronics Office for Fast, Dependable Service

Coils and Chokes for Industry

COILS

MS-90537 SUBMINIATURE SHIELDED RF INDUCTORS

- Only 0.410" x 0.162"
- Epoxy Molded and Shielded
- Low DC Resistance
- Meet MIL-C-15305C
- Less than 3% Coupling
- Tolerance: ±10%

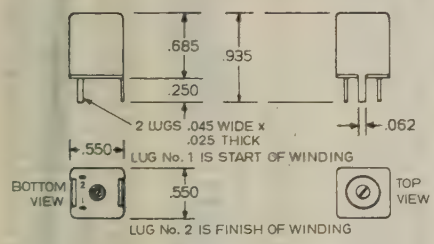
Epoxy molded and shielded for minimum coupling in high-density package. Meet electrical and environmental requirements of **MIL-C-15305C, Grade 1** (resistance to moisture and immersion), **Class B** (—55° to +125°C). For altitudes to 70,000 feet. **Tolerance:** ±10%. Less than 3% coupling. Low DC resistance. **Dielectric strength:** 700 V rms. **Size:** 0.162" dia. x .410" long. AWG #22 leads; internal T termination. Wt. per 100, 3½ oz.

Inductance µH	EACH 1-24	25-49	50-99	100-Up
Values .15-10	1.68	1.34	1.07	.86
Values 22-6800	2.34	1.87	1.50	1.20
Values 10k-100k	2.34	1.87	1.50	1.20

Old MIL Number	New MIL Number	Stock No.	Type 9250-	Ind. µH	Q	@ MHz
MS-90537-3	MS-75087-3	871-3010	151	.15	51	25
MS-90537-7	MS-75087-7	871-3030	331	.33	46	25
MS-90537-13	MS-75088-1	871-3060	102	1.0	47	25
MS-90537-21	MS-75088-9	871-3110	472	4.7	44	7.9
MS-90537-25	MS-75088-13	871-3130	103	10	49	7.9
MS-90537-29	MS-75089-3	871-3150	223	22	46	2.5
MS-90537-30	MS-75089-4	871-3155	273	27	49	2.5
MS-90537-33	MS-75089-7	871-3170	473	47	52	2.5
MS-90537-35	MS-75089-8	871-3175	563	56	49	2.5
MS-90537-35	MS-75089-9	871-3180	683	68	51	2.5

Old MIL Number	New MIL Number	Stock No.	Type 9250-	Ind. µH	Q	@ MHz
MS-90537-37	MS-75089-11	871-3200	104	100	52	2.5
MS-90537-41	MS-75089-15	871-3210	224	220	58	.79
MS-90537-42	MS-75089-16	871-3215	274	270	60	.79
MS-90537-45	MS-75089-19	871-3230	474	470	60	.79
MS-90537-47	MS-75089-21	871-3240	684	680	60	.79
MS-90537-49	MS-75089-23	871-3250	105	1000	65	.79
MS-90537-53	MS-75089-27	871-3270	225	2200	50	.25
MS-90537-59	MS-75089-33	871-3300	685	6800	43	.25
MS-90537-61	MS-75089-35	871-3310	106	10k	39	.25
MS-90537-73	MS-75089-47	871-3390	107	100k	18	.079

SHIELDED SUBMINIATURE ADJUSTABLE RF COILS

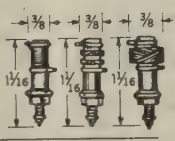


Compact adjustable coils offer a minimum two-to-one inductance range with relatively small changes in Q. Tuning adjustment is accessible from either the top or bottom of the coil assembly. Magnetic shielding is achieved through the use of cup cores while metal shield offers effective electronic shielding. Printed circuit terminals on base and shield. *Indicates inductance in millihenries. Size, ½" sq. x ⅝" high.

Stock No.	Mfr's Type	Max. Core Position Max. µH	Max. Core Position Min. Q	Min. Core Position Min. µH	Min. Core Position Min. Q	EACH 1-49	50-99	100-249	250-Up
855-0701	9051	3.0	46	7.0	45	4.90	2.94	2.16	1.62
855-0704	9054	28.0	48	60.0	45	5.00	3.00	2.20	1.65
855-0708	9058	650	36	1.3*	68	6.00	3.60	2.64	1.98

RF COILS

Wound on silicon-impregnated ceramic forms to reduce moisture absorption. Tuned by powdered-iron core. **STANDARD.** High "Q" with large inductance range. Mounting bushing requires ¼" dia. hole, ⅜" dia., 1¼" long. Wt. 2 oz.

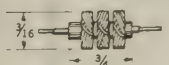


Stock No.	Mfr's Type	Ind., µH Min.	Ind., µH Max.	EACH 1-24	25-99	BULK 100-249	250-Up
855-3278	4403	.99	1.5	6.50	3.90	2.86	2.15
855-3280	4405	3.3	6.5	7.00	4.20	3.08	2.31
855-3281	4406	7.3	14.0	6.50	3.90	2.86	2.15
855-3282	4407	16.0	29.0	8.00	4.80	3.52	2.64
855-3291	4410	138	238	8.00	4.80	3.52	2.64
855-3292	4411	270	451	8.00	4.80	3.52	2.64
855-3296	4413	825	1300	8.00	4.80	3.52	2.64

MINIATURE. Same high-quality coils as above, but for limited-space applications. Mount in ¾" dia. hole. Size: ¼" dia. x ⅞" long. With hardware. Av. wt. 2 oz.

Stock No.	Mfr's Type	Ind., µH Min.	Ind., µH Max.	EACH 1-24	25-99	BULK 100-249	250-Up
855-3308	4501	.44	.76	5.25	3.15	2.31	1.73
855-3310	4503	1.7	2.7	5.25	3.15	2.31	1.73
855-3334	4505	5.5	8.6	5.95	3.57	2.62	1.96
855-3336	4506	9.9	15.0	5.95	3.57	2.62	1.96
855-3338	4507	17.0	23.0	5.95	3.57	2.62	1.96
855-3340	4508	26.0	33.0	5.95	3.57	2.62	1.96
855-3342	4509	38.0	57.0	5.95	3.57	2.62	1.96
855-3350	4514	350.0	475.0	7.00	4.20	3.08	2.31

MOISTURE, FUNGUS-RESISTANT RF CHOKES

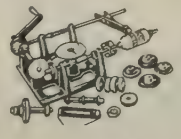


Phenolic construction. Resistant to fungus and moisture. Have 3/16" dia. x ¾" long; iron core form, 7/32" x ⅞". *max.; †min. All have ±5% tolerance, except §±10%. F is self-resonant frequency. Wt. 2 oz.

PHENOLIC FORM—SINGLE LAYER WINDING

Stock No.	Mfr's Type	µH	†Q	†F MHz	DC* Ohms	mA Max.	EACH 1-9	10-99	BULK 100-249	250-499
855-3490	4608	3.9	60	7.9	.45	1000	1.20	.72	.53	.40
855-3508	4612	§10.0	36	61	1.50	500	1.25	.75	.55	.41
855-3534	4628	39.0	70	2.5	.65	600	1.40	.84	.62	.46

"COILMASTER" COIL WINDER



Easy-to-operate coil winder makes professional-looking self-supporting, universal and honeycomb coils; solenoids; single-layer coils, etc. Indicator counts turns as you wind. 3 cams and 4 gears—easily adjusts for pi spacing and different types of coil forms. For use by #22 to #40 wire. Base size, 5 x 5". Wire and coil forms not included.
559-5401. Shpg. wt. 3 lbs. **15.00**

SUBMINIATURE RF INDUCTORS

Epoxy molded, unshielded, with extreme inductance-to-size ratio. Designed to meet all environmental requirements of **MIL-C-15305C, Grade 1, (resistance to moisture and immersion), Class B (oper. temp.) from —55° to +125°C.** Vibration, shock resistant. Operate to 70,000 ft. Tolerance, ±10%. Size, ¼" long x 1/10" diameter. #24 leads. Av. shpg. wt. per hundred, 3 oz.

Inductance µH	EACH 1-24	25-49	50-99	100-Up
Values 0.1-1	1.94	1.55	.92	.71
Values 1.2-27	2.15	1.72	1.03	.78
Values 33-100	2.26	1.81	1.07	.83
Values 150-1000	2.36	1.89	1.12	.87

Stock No.	Type 9230-	Ind. µH	Q	@ MHz
871-2000	94	.10	40	25
871-2020	04	.22	35	25
871-2030	08	.33	32	25
871-2035	10	.39	32	25
871-2045	14	.56	32	25
871-2050	16	.68	33	25
871-2055	18	.82	30	25
871-2060	20	1.00	30	25
871-2090	32	3.30	45	7.9
871-2095	34	3.90	45	7.9
871-2130	48	15.0	47	2.5
871-2180	68	100	50	2.5
871-2200	76	220	26	0.79
871-2230	92	1000	28	0.79

SUBMINIATURE RF CHOKES

Type 70F. Iron core chokes rated 50 mA DC, max. ¼" long. Wt. 2 oz.

Stock No.	Type 70-F-	µH	Min. Q	Freq.	EACH 1-24	BULK 25-99	100-249	250-499
855-1870	276AI	2.7	34	7.9 mHz	.84	.62	.46	.41
855-1792	105AI	10	36	7.9 mHz	1.60	.96	.70	.53
855-1790	104AI	100	25	2.5 mHz	1.60	.96	.70	.53
855-1832	124AI	120	40	790 kHz	.96	.70	.53	.46
855-1840	204AI	200	47	790 kHz	.96	.70	.53	.46
855-1846	224AI	220	46	790 kHz	1.60	.96	.70	.53
855-1872	334AI	330	41	790 kHz	.96	.70	.53	.46
855-1788	103AI	1.00 mH	30	790 kHz	1.70	1.02	.75	.56
855-1837	153AI	1.5 mH	40	250 kHz	1.02	.75	.56	.49
855-1844	223AI	2.2 mH	40	250 kHz	1.11	.81	.61	.54
855-2020	473AI	4.70 mH	49	150 kHz	1.90	1.14	.84	.63
855-1786	102AI	10 mH	41	250 kHz	2.30	1.38	1.01	.76

FERRITE CORE RF CHOKES

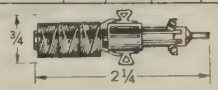
Meet industrial standards. High permeability core permits high inductance in small size. Low DC resistance. Core: ¼" dia., ⅞" long. 1½" axial leads. 2 oz.

Stock No.	Mfr's Type	mH	Ohms	mA	Dia. In.	EACH 1-24	BULK 25-99	100-249	250-499
855-3992	6302	2.5	9.0	160	15/32	2.30	1.38	1.01	.76
855-3996	6304	5	14	160	17/32	2.65	1.59	1.17	.87
855-4000	6306	10	31	100	17/32	2.90	1.74	1.28	.96

PRINTED CIRCUIT RF CHOKES

Printed-circuit type mounting lugs for quick, easy soldering. Coil forms ⅞" long. Wt. 1½ oz.

855-2750	994	100	473	50	1 1/16	5.50	3.30	2.42	1.82



WIDE-RANGE ADJUSTABLE INDUCTORS

For constructing prototypes when inductance value is unknown. Max. dia., ¾"; length, 2¼". Wt. 3 oz.

UNTAPPED INDUCTORS

Stock No.	Mfr's Type	Min. mH	Q Min.	Max. mH	Q Min.	EACH 1-24	BULK 25-99	100-249	250-499
855-4880	9002	.18	80	.80	170	4.00	2.40	1.76	1.32
855-4882	9003	.57	73	2.80	110	5.75	3.45	2.53	1.90
855-4884	9004	2.10	72	8.00	88	5.00	3.00	2.20	1.65
855-4886	9005	6.00	69	16.0	105	5.90	3.54	2.60	1.95
855-4890	9007	30.0	43	105.0	76	6.00	3.60	2.64	1.98

Alec Electron

Audio Transformers & Cross-Reference Guide

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ALLIED AUDIO TRANSFORMERS

INTERSTAGE AUDIO TRANSFORMER

Maximum DC permissible in primary is 30 mA. Single plate to P-P grid. Turns ratio: 1:1. Mounting centers, 2⅜". Av. Shpg. wt. ¾ lb.

Stock No.	Mfr's Type	Fig.	Impedance, Ohms Primary	Impedance, Ohms Sec.	Size HxWxD	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705-0862	6W68HF	A	10K	10K CT	1⅝x2⅞x1⅝"	5.40	4.86	4.37	3.27

CONSTANT-VOLTAGE 70.7-V LINE-TO-VOICE-COIL TRANSFORMERS

Secondary impedance: 4, 8, 16 ohms except *4, 8 ohms only. Shpg. wt. ¾ lb.

Stock No.	Mfr's Type	Fig.	Watt. Taps	Max. W.	Size HxWxD	Mtg. Ctrs.	EACH 1-9	EACH 10-49	EACH 50-99	Bulk 100-Up
705-0801	6W2HFL	B*	5, 2.5, 1.25, .62, .31	5	1⅜x2⅜x1½"	2"	6.96	6.26	5.63	4.22
705-0802	6W4HFL	B	10, 5, 2.5, 1.25, .62	10	1⅝x2 13/16x1⅝"	2⅜"	6.13	5.52	4.47	3.35
705-0804	6W6HFL	B	24, 12, 6, 3, 1.5, .75	24	2¼x3 11/16x2¼"	3⅛"	9.13	8.22	7.39	5.54

CONSTANT-VOLTAGE 25-V LINE-TO-VOICE-COIL TRANSFORMER

Secondary Impedance: 4, 8 ohms. Shpg. wt. ¾ lb.

705-0833	6W39HFL	B	10, 5, 2.5, 1.25, 0.625	10	2¼x3 11/16x2"	3⅛"	7.95	7.16	5.79	4.34

STANDARD LINE-TO-VOICE-COIL TRANSFORMER

Shpg. wt. 1¼ lbs.

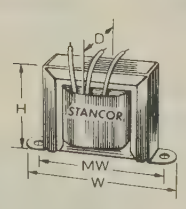
Stock No.	Mfr's Type	Fig.	Impedance, Ohms Primary	Impedance, Ohms Secondary	Size HxWxD Inches	Mtg. Ctrs. In.	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705-0823	6W29HFL	B	500	4, 8	1⅜x2⅜x1½"	2	4.33	3.90	3.51	2.63

MINIATURE INTERCOM AND TRANSCEIVER TRANSFORMERS

Intercom transformer. Intercom input, voice coil to grid. Standard single plate to voice coil output. 3 watts power handling capability. Average shipping weight: ½ lb.

705-0849	6W55HF	D	4	25,000	1⅜x2⅜x1½"	2	4.50	4.05	3.28	2.46

ALL-PURPOSE AUDIO TRANSFORMERS



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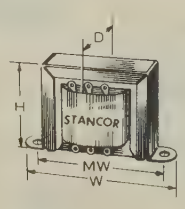

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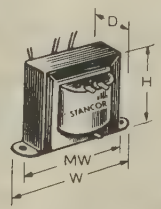


F

SINGLE PLATE TO VOICE COIL AND/OR LINE

Max. Pri. 5 DCMA. Audio -5 watts. Shpg. wt. ½ lb.

Stock No.	Mfr's Type	Fig.	Impedance (Ohms) Pri.	Impedance (Ohms) Sec.	DC Res. (Ohms) Pri.	DC Res. (Ohms) Sec.	Response Hz± 3 DB	HxWxD	MW	EACH 1-9	EACH 10-24	EACH 25-99	Bulk Pkd. 100-Up
928-0327	A-3327	D	25,000	4.0	1200	0.6	200-15000	1⅜x2⅜x1⅜	2	5.00	4.00	3.70	2.10

LINE TO VOICE COIL

Audio -5 watts. Rms test -1000 V. Shpg wt. ½ lb.

928-0033	A-8101	E	500	3/3.2/6-8	40	0.5	60-20000	1⅜x2⅜x1½	2	4.75	3.80	2.57	2.00

70.7 VOLT LINE TO VOICE COIL

Power steps (watts) -5/2.5/1.25/.621/.31. Shpg. wt. ½ lb.

928-0037	A-8105	F	1000/2000/4000/8000/16000	4/8	950	.06	50-20000	1⅜x2⅜x1½	2	7.50	6.00	4.05	3.15

TRANSFORMER CROSS-REFERENCE

Merit Type Number	Allied Type Number
A2806	6W39HFL
A3005	6W29HFL
A3013	6W2HFL
A3014	6W4HFL
A3016	6W6HFL
C2987	6X1HF
P2843	6K1VF
P2871	6K28HF
P2941	6K11HF
P2944	6K9HF
P2946	6K10HF
P2947	6K26VBR
P2948	6K34VBR
P2949	6K2HB
P2952	6K5HB
P2959	6K36HF
P2962	6K37HF
P2964	6K32HF
P3040	6K39HF
P3074	6K35HF
P3095	6K31VG
P3147	6K49VG
P3150	6K3VG
P3160	6K54VG
P3161	6K12VCP
P3162	6K13VCP
P3163	6K14VCP
P3164	6K15VCP
P3173	6K7VG
P3198	6K18VCP
P3199	6K19VCP

Stancor Type Number	Allied Type Number
PS8415	6K27VF
PS8416	6K1VF
RT201	6K63VBR
RT202	6K64VBR
RT204	6K65VBR
RT206	6K66VBR
RT208	6K67VBR
TP-2	6K101HF
TP-3	6K102HF
TA-12	6T25HF
TA-21	6T28PC
TA-24	6T11PC
TA-28	6T46PC
TA-30	6T13PC
P8130	6K36HF
P8190	6K83HF
P8193	6K106VBR
P8196	6K129VG
P8357	6K96HF
P8358	6K110HF
PA8421	6K28HF
PC8305	6K130VG
PC8405	6K56VG
PC8406	6K3VG
PC8408	6K54VG
PC8411	6K7VG
PC8414	6K31VG
PC8418	6K19VG
PM8401	6K2HB
PM8409	6K5HB

Stancor Type Number	Allied Type Number
TA-52	6T48HF
TA-57	6T52VF
TA-59	6T54HF
A4713	6W68HF
A4744	6W55HF
A8101	6W29HFL
A8105	6W2HFL
C1003	6X1HF
C1421	6X21VG
C1709	6X15HF
C2343	6X35HF
C2685	6X29HBR
C2686	6X30HBR
C2688	6X31HBR
C2689	6X42HBR
C2690	6X33VBR
C2704	6X43HF
C2705	6X37VG
C3708	6X34HF
P3062	6K11HF
P3064	6K26VBR
P5015	6K73VBR
P5016	6K75VBR
P5062	6K12VCP
P5063	6K22VCP
P5064	6K13VCP
P6124	6K20VCP
P6134	6K35HF
P6135	6K70VBR
P6138	6K74VBR
P6139	6K76VBR

Stancor Type Number	Allied Type Number
P6141	6K15VCP
P6308	6K34VBR
P6309	6K72VBR
P6375	6K77VFL
P6376	6K78VFL
P6377	6K79VFL
P6378	6K80VBR
P6379	6K119VBR
P6410	6K38VCP
P6425	6K82VF
P6432	6K62VBR
P6433	6K120VBR
P6456	6K26VF
P6458	6K122VBR
P6461	6K123VG
P6465	6K32HF
P6466	6K10HF
P6467	6K39HF
P6469	6K37HF

Thordarson Type Number	Allied Type Number
20A04	6W55HF
20C00	6X29HBR
20C01	6X30HBR
20C03	6X31HBR
20C25	6X33VBR
20C54	6X21VG
26C45	6X37VG
26C77	6X35HF
26C81	6X34HF
26C87	6X1HF
20D23	6W68HF
21F03	6K39HF
21F07	6K62VBR
21F08	6K9HF
21F09	6K35HF
21F10	6K10HF
21F11	6K26VBR
21F12	6K34VBR
21F13	6K70VBR
21F16	6K74VBR
21F21	6K32HF
21F25	6K72VBR
21F27	6K48HF
21F28	6K76VBR
21F45	6K73VBR
21F51	6K37HF
21F60	6K11HF
21F61	6K75VBR
21F72	6K26VF
21F77	6K93VG
21F81	6K95HF
21F82	6K89HF
21F83	6K96HF
21F120	6K86HF

Thordarson Type Number	Allied Type Number
26F60	6K83HF
26F67	6K36HF
24R00	6K2HB
24R01U	6K3VG
24R02U	6K54VG
24R04	6K5HB
24R06U	6K7VG
24R11U	6K49VG
24R20U	6K56VG
24R27	6K31VG
24R50	6K88VG
24R107	6K82VF
26R38	6K28HF
26R39	6K1VF
24S74	6W2HFL
24S75	6W29HFL
23V21	6K22VCP
23V22	6K13VCP
23V24	6K15VCP
23V45	6K38VCP
23V48	6K18VCP
23V50	6K77VFL
23V51	6K78VFL
23V52	6K79VFL
23V53	6K80VBR
23V58	6K19VCP
23V60	6K63VBR
23V61	6K64VBR
23V62	6K65VBR
23V63	6K66VBR
23V64	6K67VBR
23V72	6K14VCP
23V73	6K20VCP
23V79	6K69HF
23V81	6K12VCP
23V100	6K105VBR
23V101	6K106VBR
23V103	6K107VBR
23V104	6K108VBR

Thordarson Type Number	Allied Type Number
23V105	6K109VBR
23V115	6K100HF
23V116	6K101HF
23V117	6K102HF
23V118	6K103HF
23V119	6K104VG
23V120	6K21VCP
TR-1	6T48HF
TR-2	6T13PC
TR-4	6T46PC
TR-26	6T11PC
TR-63	6T52VF
TR-66	6T54HF
TR-102	6T28PC
TR-300	6T25HF

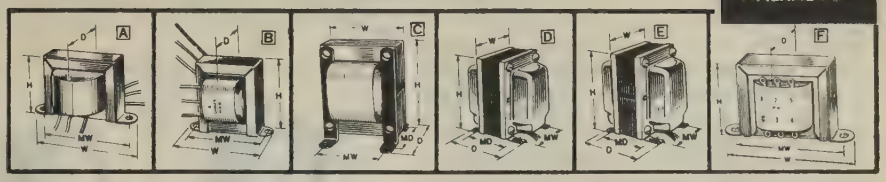
Triad Type Number	Allied Type Number
C8X	6X15HF
C16A	6X37VG
C27X	6X35HF
C40X	6X34HF
C47U	6X33VBR
F1X	6K86HF
F7X	6K39HF
F8X	6K11HF
F13X	6K32HF
F14X	6K35HF
F16X	6K10HF
F22A	6K93VG
F23U	6K75VBR
F25X	6K94HF
F26X	6K95HF
F29U	6K134VBR
F34A	6K136VG
F40X	6K89HF
F41X	6K96HF
F44X	6K36HF
F45X	6K113HF
F47U	6K105VBR
F48U	6K106VBR
F52X	6K83HF
F60U	6K107VBR
F61U	6K108VBR
F67U	6K109VBR
F90X	6K101HF
F91X	6K102HF
F92X	6K104VG
F93X	6K103HF
F94X	6K100HF
N1X	6K69HF
N3M	6K12VCP
N4M	6K13VCP
N5M	6K14VCP
N11M	6K21VCP
N51X	6K112HF
N54M	6K139VCP
N55M	6K19VCP
N68X	6K140HF
R4A	6K88VG
R6B	6K2HB
R11B	6K5HB
R14A	6K56VG
R29A	6K111VG
R30X	6K28HF
R54X	6K143HF
R73B	6K146HB
R113A	6K3VG

UTC Type Number	Allied Type Number
CG-32	6K35HF
CG-124	6K134VBR
CG-125	6K134VBR
FT-1	6K86HF
FT-2	6K35HF
FT-4	6K10HF
FT-6	6K39HF
R-17	6X1HF
R-18	6X15HF
R-41	6K12VCP
R-42	6K13VCP
R-43	6K13VCP
R-44	6K14VCP
R-45	6K15VCP
R-46	6K20VCP
R-64	6K21VCP
R-72	6K112HF
R-72	6K38VCP
R-74	6K19VCP
R-101	6K2HB
R-102	6K5HB
R-103	6K5HB
R-112	6K56VG
S-54	6K11HF
S-55	6K10HF
S-62	6K134VBR
S0-9	6T28PC

Allied's Goal – Greater Per Unit Savings with Larger Quantity Buys

Allied® Transistor and Filament Transformers

Allied transformers are specially built to Allied Electronics' high standards for quality, stability and long-term performance. Quantities of 100 and up are shipped bulk-packed F.O.B. Chicago, Illinois. Phone, wire or write Allied Electronics for pricing on quantities of 250 or more.



Allied's own line of top-quality transformers. Compare prices and specs—you're money ahead with Allied transformers. Send us your specifications—let Allied handle your transformer needs.

TRANSISTOR OUTPUT, INTERSTAGE, DRIVER AND POWER TYPES

OUTPUT TRANSFORMERS

Stock No.	Mfr's Type	Fig.	Impedance, Ohms Pri.	Impedance, Ohms Sec.	Res, Ohms Pri.	Res, Ohms Sec.	Watts	Size H x W x D Inches	Mtg. Ctrs. (MW x MD) Inches	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705-0527	6T28PC	A	500 CT	4, 8, 16	75.3	3.55	.150	2 1/32 x 1 3/16 x 1 5/16	2 5/32	6.98	6.28	5.65	4.23
705-0524	6T25HF	E	20 CT	8	.55	.35	10	1 7/16 x 2 5/16 x 1 3/4	2	4.95	4.46	4.01	3.00
705-0549	6T52VF	E	100 CT	3.2, 8, 16	6.6	1.5	10	2 5/16 x 2 1/16 x 2	2 3/4	6.19	5.57	5.01	3.75

INTERSTAGE TRANSFORMERS

Stock No.	Mfr's Type	Fig.	Impedance, Ohms Pri.	Impedance, Ohms Sec.	Res, Ohms Pri.	Res, Ohms Sec.	Watts	Size H x W x D Inches	Mtg. Ctrs. (MW x MD) Inches	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705-0511	6T11PC	A	500 CT	50K	76.8	5135	.150	2 1/32 x 1 3/16 x 1 5/16	2 5/32	6.19	5.57	5.01	3.75
705-0544	6T46PC	A	1500	500 CT	104	46.5	.150	2 1/32 x 1 3/16 x 1 5/16	2 5/32	7.20	6.48	5.83	4.37
705-0513	6T13PC	A	5K CT	7500 CT	650	790	.150	2 1/32 x 1 3/16 x 1 5/16	2 5/32	6.98	6.28	5.65	4.24
705-0545	6T48HF	E	500 CT	500 CT	40	55	.300	1 3/16 x 1 5/16 x 1 3/4	1 3/4	6.98	6.28	5.65	4.24

TRANSISTOR POWER TRANSFORMER

Stock No.	Mfr's Type	Fig.	Plate Supply AC V	Plate Supply DC mA	Size H x W x D Inches	Mtg. Ctrs. (MW x MD) Inches	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705-0551	6T54HF	E	500 CT	200 CT	36.5	15.5	.500	1 1/4 x 2 1/16 x 1 1/4	1 3/4	5.18	4.66	4.19	3.14

TRANSISTOR POWER TRANSFORMER Primary for 117 V, 60 Hz AC.

Stock No.	Mfr's Type	Fig.	Plate Supply AC V	Plate Supply DC mA	Size H x W x D Inches	Mtg. Ctrs. (MW x MD) Inches	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705-0154	6K 129VG	D	80 CT	1200	3 1/32 x 2 15/16 x 3 5/16	2 1/4 x 2 3/8	5.18	4.66	4.19	3.14

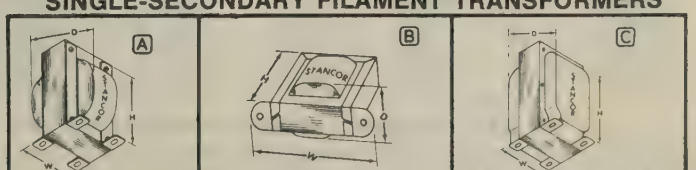
FILAMENT TRANSFORMERS

Quality filament transformers provide reliable operation in a variety of applications. Primaries for 115-125 volts 50-60 Hz. Type with ** has tapped primary to produce lower voltages. Types with * have primary tap for 107-volt operation. Types with ‡ have an electrostatic shield. † multiple secondary—one winding center-tapped.

Stock No.	Mfr's Type	Fig.	Volts	Amps	Insul., rms V	Size HxWxD Inches	Mtg. Ctrs. Inches	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705R0110	6K86HF	A	2.5 CT	3.0	1500	1 11/16 x 2 13/16 x 1 7/8	2 3/4	5.38	4.84	4.35	3.26
705-0045	6K39HF	A	5.0 CT	3.0	2500	2 x 3 1/4 x 2	2 1/16	6.63	5.97	5.37	4.03
705-0018	6K11HF	A	5.0 CT	6.0	2500	2 3/4 x 3 3/8 x 2 1/4	3 1/8	9.56	8.60	7.74	5.81
705-0094	6K70VBR	D	5.0 CT	10.0	2500	3 1/4 x 2 1/2 x 3	2 x 3 3/8	13.25	11.93	10.73	8.04
705-0145	6K120VBR	D	5.0 CT	15.0	2500	3 x 2 1/2 x 3	2 x 2 1/4	14.60	13.14	11.82	8.87
705-0086	6K62VBR	D	5.0 CT	21.0	2500	3 3/4 x 3 1/16 x 3 1/4	2 1/2 x 2 1/4	16.45	14.81	13.32	9.99
705R0042	6K32HF	A	6.3 CT	0.6	1500	1 3/16 x 2 3/16 x 1 1/8	2	5.21	4.69	4.22	3.17
705R0016	6K9HF	A	6.3 CT	1.0	1500	1 5/16 x 2 13/16 x 1 3/4	2 3/4	3.80	3.42	3.08	2.31
705R0045	6K35HF	A	6.3 CT	1.2	3000	1 5/16 x 2 13/16 x 1 7/8	2 3/4	4.93	4.44	3.99	2.99
705R0107	6K83HF	A	6.3	1.2	5000	2 x 3 1/4 x 1 7/8	2 1/16	7.12	6.41	5.76	4.32
705-0161	6K136VG	C	6.3†	1.75	1500	3 1/16 x 2 5/16 x 3 1/16	2 x 2 1/2	14.73	13.26	11.93	8.94
705R0017	6K10HF	A	6.3 CT	3.0	2500	2 x 3 1/4 x 2 3/8	2 1/16	7.10	6.39	5.75	4.31
705-0032	6K26VF	B	6.3 CT	6.0	2000	3 1/16 x 3 1/16 x 2 1/2	3 1/4	10.67	9.60	8.64	6.48
705-0033	6K26VBR	D	6.3 CT	6.0	2500	3 x 2 1/2 x 2 1/4	2 x 2	6.21	5.59	5.03	3.77
705-0044	6K34VBR	D*	6.3 CT	10.0	2500	3 3/16 x 2 13/16 x 2 3/16	2 1/4 x 2 1/8	11.65	10.49	9.44	7.08
705-0120	6K93VG	C	6.3 CT	20.0	2000	3 7/16 x 3 9/16 x 4 1/16	2 1/2 x 3	21.25	19.13	17.21	12.90
705-0096	6K72VBR	D‡*	6.3 CT	20.0	2500	4 5/16 x 3 3/16 x 2 3/8	3 x 2 3/8	15.64	14.08	12.67	9.50
705-0097	6K73VBR	D‡	7.5 CT	4.0	2500	3 1/16 x 2 5/16 x 2 11/16	2 x 2 1/2	14.40	12.96	11.66	8.74
705-0098	6K74VBR	D‡	7.5 CT	8.0	2500	3 3/16 x 3 1/16 x 2 3/8	2 1/2 x 2 1/4	10.35	9.32	8.38	6.29
705-0099	6K75VBR	D‡	10.0 CT	4.0	2500	3 3/16 x 2 13/16 x 2 3/4	2 1/4 x 2 1/8	12.89	11.60	10.44	7.83
705-0147	6K122VBR	D‡*	10.0 CT	5.0	2000	3 x 2 1/2 x 4 3/4	2 x 2 1/2	13.42	11.92	10.72	8.04
705-0100	6K76VBR	D‡	10.0 CT	8.0	2500	3 3/16 x 3 1/16 x 3	2 1/2 x 2 3/8	13.91	12.52	11.26	8.45
705-0148	6K123VG	C	10.0 CT	10.0	2000	3 3/16 x 3 1/16 x 3 3/4	2 1/2 x 2 1/2	14.59	13.13	11.81	11.09
705-0159	6K134VBR	D**	12-11-10 CT	11.0	3000	4 1/16 x 3 7/16 x 3 1/16	2 3/4 x 2 1/2	17.63	15.87	14.28	12.50
705R0121	6K94HF	A	12.6 CT	1.5	1500	2 x 3 1/4 x 2	2 1/16	7.00	6.30	5.67	4.25
705R0046	6K36HF	A	12.6 CT	2.0	1500	2 x 3 1/4 x 2 1/4	2 1/16	6.84	6.16	5.54	4.15
705-0122	6K95HF	A	12.6 CT	2.5	1500	2 1/4 x 3 5/16 x 2 1/4	3 1/8	9.98	8.98	7.27	5.45
705R0136	6K110HF	A	12.6 CT	3.0	1500	2 5/16 x 3 1/16 x 2 3/16	3 1/8	7.76	6.98	6.28	4.71
705R0139	6K113HF	A	24.0 CT	1.0	1500	2 x 3 1/4 x 2	2 1/16	7.75	6.98	6.28	4.71
705R0047	6K37HF	A	25.2	1.0	1500	2 x 3 1/4 x 2 1/8	2 1/16	6.45	5.81	5.23	3.92
705R0123	6K96HF	A	25.2 CT	2.0	1500	2 5/16 x 4 x 2 3/16	3 5/16	9.70	8.73	7.85	5.88
705R0065	6K48HF	A	26.5 CT	0.6	3000	2 x 3 1/4 x 2	2 1/16	5.20	4.68	4.21	3.16
705R0114	6K89HF	A	26.8 CT	1.0	1500	2 x 3 1/4 x 2 1/8	2 1/16	9.29	8.36	7.52	5.64

SINGLE-SECONDARY FILAMENT TRANSFORMERS

Broad line of commercial grade transformers. All units designed and built to meet the exacting requirements of EIA for electrical tolerances, dielectric strength, temperature rise and construction. All insulated with class A materials. 105°C maximum operating temperature. All have center tapped secondaries except types P4026 and P6469. All have 115 VAC, 50-60 Hz primary. (*) Indicates units with 107 V primary tap for low line voltage.

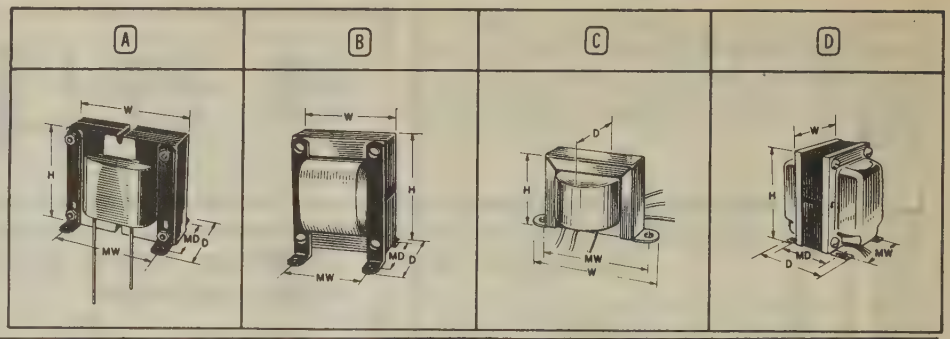


Stock No.	Mfr's Type	Fig.	Secondary Volts	Secondary Amps	Size, Inches H x W x D	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk 100-Up
928-2012	P4026	B	2.5	1.5	1 5/16 x 2 3/16 x 1 3/8	1	6.00	4.80	3.24	2.52
928-2067	P6135	A	5.0	10.0	3 1/16 x 2 1/16 x 2 1/16	2	12.75	10.20	8.38	6.51
928-3041	P6492	C	5.0	30.0	4 11/16 x 3 3/16 x 4	7 1/2	22.55	20.25	18.23	14.18
928-4035	P8385	B	6.3	.3	1 1/16 x 2 1/16 x 1 3/16	1/2	5.38	4.30	2.90	2.26
928-3027	P6465	B	6.3	.6	1 5/16 x 2 5/16 x 1 1/2	1/2	5.63	4.50	3.04	2.36
928-2066	P6134	B	6.3	1.2	1 5/16 x 2 1/16 x 1 1/8	1	5.63	4.50	3.04	2.36
928-3028	P6466	B	6.3	3.0	2 x 3 1/16 x 2 1/16	1 1/2	8.13	6.50	4.39	3.41
928-2010	P3064	A	6.3	6.0	3 1/16 x 2 1/16 x 2 3/16	2 1/2	14.38	11.50	7.77	6.04
928-2080	P6308*	A	6.3	10.0	3 7/16 x 2 13/16 x 2 5/16	3 1/2	12.11	10.88	9.79	7.62
928-2081	P6309*	A	6.3	20.0	4 5/16 x 3 3/16 x 3 3/16	6 1/4	19.04	17.10	15.39	11.97
928-2070	P6139	A	10.0	8.0	3 13/16 x 3 1/16 x 3	5	14.20	12.75	11.48	8.93
928-4034	P8384	B	12.6	1.0	2 x 3 1/16 x 1 3/16	1	6.88	5.50	3.71	2.89

Stock No.	Mfr's Type	Fig.	Secondary Volts	Secondary Amps	Size, Inches H x W x D	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk 100-Up
928R3060	P8130	B	12.6	2.0	2 x 3 1/16 x 2 1/16	1 1/2	7.75	6.20	4.19	3.26
928-4017	P8358	B	12.6	3.0	2 5/16 x 3 3/16 x 2 1/16	1 3/4	9.00	7.20	4.86	3.78
928R3031	P6469	B	25.2	1.0	2 x 3 1/16 x 2 1/16	1 1/2	7.50	6.00	4.05	3.15
928-4016	P8357	B	25.2	2.0	2 5/16 x 4 x 2 1/16	2 1/4	11.88	9.50	6.42	4.99
928-3078	P8180	B	52.2	1.0	2 x 3 1/16 x 2 1/16	1 1/2	7.50	6.00	4.05	3.15
928-4038	P8388	B	25.2	2.8	2 5/16 x 4 x 2 1/16	2 1/4	14.00	11.20	7.57	5.88

Filter Chokes, Power & Rectifier Transformers

Allied transformers are specially built to Allied Electronics' high standards for quality, stability and long-term performance. Quantities of 100 and up are shipped bulk-packed F.O.B. Chicago, Illinois. Phone, wire or write Allied Electronics for pricing on quantities of 250 or more, or simply contact your nearest Allied Electronics' facility.



FILTER CHOKES

Rated at 10V, 60 Hz with max. DC in winding. All −15%, +50% tol. 1500-V rms insulation, except †2000V, *3000V. ‡Amperes. §Tapped for 8 H @ 150 mA or 4 H @ 200 mA.

Stock No.	Mfr's Type	Fig.	Henries	mA	Ohms	Size H x W x D Inches	Mtg. Ctrs. Inches	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705-1143	6X42HBR	A	.005	22.5‡	.03	3¾x4½x4$^{13}/_{16}$	3¾x3½	23.91	21.52	19.37	14.28
705-1131	6X31HBR	A	.01	12.5‡	.11	3½x4⅛x3	3⅜x2⅜	13.72	12.35	11.12	8.34
705-1130	6X30HBR	A	.025	4‡	.425	2⅞x3⅜x2¾	2¾x2⅛	12.84	11.56	10.41	7.80
705-1129	6X29HBR	A	.035	2‡	.75	2⅜x2⅝x2½	2⅛x2	9.27	8.34	7.51	5.63
705-1133	6X33VBR	B	.3/.075	1.0/2.0‡	3/.75	3½x2⅞x3$^{3}/_{16}$	2¼x2$^{11}/_{16}$	10.99	9.89	8.91	6.68
705-1134	6X34HF	C	.32	600	10	2x3¼x2¼	2$^{13}/_{16}$	5.73	5.16	4.65	3.48
705-1135	6X35HF	C	.70	290	30	1$^{11}/_{16}$x2$^{13}/_{16}$x1½	2⅜	3.71	3.34	3.01	2.25
705-1115	6X15HF	C	8.0	85	260	2x3¼x2	2$^{13}/_{16}$	4.73	4.26	3.83	2.87
705-1144	6X43HF	C	9.0	125	250	2$^{5}/_{16}$x3$^{11}/_{16}$x1$^{15}/_{16}$	3⅛	6.08	5.47	4.93	2.78
705-1138	6X37VG	D	10.0†	200	150	3½x2$^{15}/_{16}$x3½	2¼x2⅜	14.90	13.41	12.07	9.05
705-1121	6X21VG	D	12.0*§	100	145	3x2⅝x2$^{11}/_{16}$	2x1¾	9.56	8.60	7.74	5.80
705-1101	6X1HF	C	16.0	50	550	2x3¼x1⅝	2$^{13}/_{16}$	5.06	4.55	4.10	3.08

All ratings are with maximum DC in winding. Rated at 1500 volts rms. Designed for both input and smoothing applications.

First rating is series operation and second rating is parallel operation.

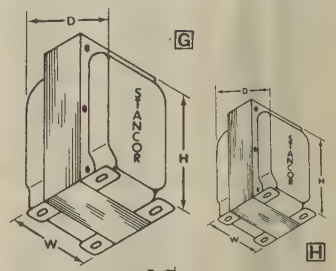
FILTER CHOKES

Stock No.	Mfr's Type	Fig.	Inductance H	mA	DC Res. Ohms	Size HxWxD Inches	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk 100-Up
928-0068	C2328	E	.8	375	25	3⅜x3¾x1⅞	1½	8.25	6.60	4.46	3.47
928-0071	C2686	F	.025	4A	.425	2⅞x2⅝x3⅜	3½	12.50	10.00	8.44	6.56
928-0072	C2687	F	.010	8A	.15	3$^{3}/_{16}$x3x3¾	5½	13.03	11.70	10.53	8.19
928-0073	C2688	F	.010	12½A	.11	3½x4⅛x2⅞	6	15.87	14.26	12.83	9.98

POWER TRANSFORMERS

G OSCILLOSCOPE POWER TRANSFORMERS

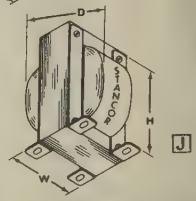
Well-built transformers for original design or replacement use. For 2x2 rectifiers in conventional half-wave high-voltage supplies. Primary voltage 117 V, 60 Hz. P-8150 secondaries (2): 1550 V AC at 1.5 mA; 2.5 V AC at 1.75 A. P-8151 secondaries (3): 2400 V AC at 5 mA; 2.5 V AC at 2 A; 2.5 V AC at 2 A.



Stock No.	Mfr's Type	Secondaries (see above)	Size Inches HxWxD	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk 100-Up
928-3061	P-8150	2	3$^{1}/_{16}$x3x2½	2	12.02	10.80	9.72	7.56
928-3062	P-8151	3	4$^{1}/_{16}$x3$^{1}/_{16}$x3¼	6½	20.84	18.76	16.88	13.13

H PLATE TRANSFORMER FOR CAPACITOR-REACTOR INPUT FILTERS

Capacitor input rating is for intermittent duty: 200 mA; †160 mA. *For reactor input. Primary 117 V, 60 Hz.



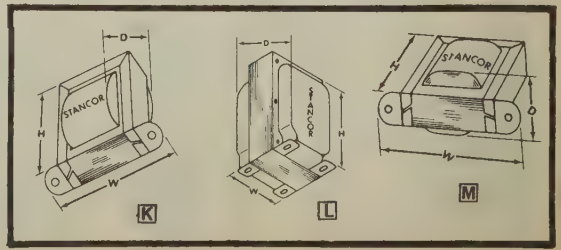
Stock No.	Mfr's Type	Plate VCT	Plate mA*	Size Inches HxWxD	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk 100-Up
928-5050	PC-8301†	830	200	3⅞x3¼x3½	4½	17.54	15.75	14.18	11.03

J RECTIFIER TRANSFORMERS

Stock No.	Mfr's Type	Range of AC Volts	Max. DC Output Load, Resistive A	Max. DC Output Load, Resistive B	Max. DC Output Load, Capacitive A	Max. DC Output Load, Capacitive B	Size Inches HxWxD	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk 100-Up
928-8001	RT-201	11.7-29.4*	11.2V@2.0A	23.0V@1.25A	13.8V@2.0A	30.0V@1.25A	3⅛x2⅛x2¾	2½	13.00	10.40	8.10	6.30
928-8002	RT-202	12.0-29.8	11.1V@4.0A	24.3V@2.0A	14.7V@4.0A	33.0V@2.0A	3$^{7}/_{16}$x2$^{13}/_{16}$x2¾	4	13.78	12.38	11.14	8.66
928R8003	RT-204	11.7-29.2†	12.0V@8.0A	24.0V@4.0A	14.5V@8.0A	32.4V@4.0A	3$^{13}/_{16}$x3⅛x3½	6¼	19.21	17.25	15.13	12.08
928-8004	RT-206	12.0-29.7	11.5V@12.0A	24.0V@6.0A	14.4V@12.0A	32.0V@8.0A	4$^{3}/_{16}$x3$^{7}/_{16}$x4	9¼	26.39	23.71	21.34	16.59
928-8005	RT-208	12.1-29.2	11.4V@15.0A	23.7V@8.0A	14.8V@15.0A	32.5V@8.0A	4$^{3}/_{16}$x3¾x5	12½	34.07	30.61	27.55	21.43
928-8009	RT-402	23.0-58.0	25.0V@4.0A	51.5V@2.0A	33.5V@4.0A	72.5V@2.0A	3$^{13}/_{16}$x3⅛x4½	7	20.71	18.60	16.14	13.02
928-8012	RT-2012	12.2-29.0	11.4V@22.5A	23.5V@12.0A	14.3V@22.5A	33.0V@12.0A	5$^{7}/_{16}$x4$^{7}/_{16}$x5$^{7}/_{16}$	20½	55.52	49.89	44.90	34.92

PLATE-FILAMENT POWER TRANSFORMERS

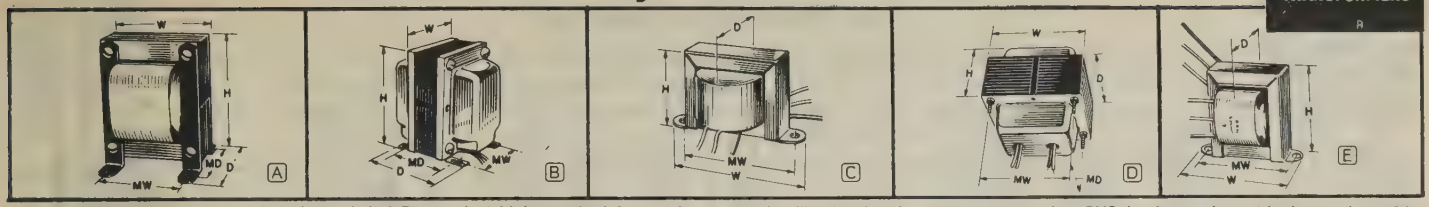
CT 6.3 V filament windings except *for 6AX5, 6X4, 6X5 tubes or with selenium rectifiers. †½ wave. Primaries, 117 V 60 Hz. ‡For AC powered photoflash circuits, 105/115/125 V primary, no center tap.



Stock No.	Mfr's Type	Fig.	Plate VCT	Plate mA	Filaments V @ A	Filaments V @ A	Size Inches H x W x D	Wt., Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk 100-Up
928-7215	*PS-8415	M	†125	15	.....	6.3 @ .6	2x2⅜x1⅜	¾	6.88	5.50	3.71	2.89
928-5000	*PA-8421	K	†125	50	.....	6.3 @ 2	2¼x3¾x2⅛	1½	10.00	8.00	5.40	4.20
928-3013	‡P-6425	M	360	20	.....	.....	2$^{5}/_{16}$x2$^{15}/_{16}$x2	1½	9.00	7.20	4.86	3.78
928-5068	PC-8409	L	700	90	5 @ 2	6.3 @ 3	3½x2$^{13}/_{16}$x3⅝	4½	15.53	13.95	12.56	9.77

Allied Chokes Are Exclusive Products of Allied Electronics

Allied® "Best-Buy" Power Transformers



Allied transformers are specially built to Allied Electronics' high standard for quality, stability and long-term performance. Laminated cores of silicon iron electrical grade steel. Insulation is non-corrosive Class A. Temperature rating 105°C continuous operation. Superior permeability at high inductances, with low coil loss. Coils of high quality film insulated copper magnet wire. PVC leads are fast stripping and provide protection from oil, ozone and abrasion. Cold rolled steel covers provide protection to coils. Finished in semi-gloss enamel for good appearance. Compare prices and specifications and you will find that Allied transformers are your best buy.

ALLIED OSCILLOSCOPE POWER TRANSFORMER

For use with 2X2A rectifiers in half-wave power supplies. All require primary input voltage of 117 volts, 60 Hz AC. Secondary outputs are shown in table below

Stock No.	Mfr's Type	Fig.	Plate Supply		Rect.		Other Secondary Outputs	Size HxWxD	EACH			Bulk Packed 100-Up
			AC Volts	DC mA	Volts	Amps			1-9	10-49	50-99	
705-0151	6K126VG	B	2400	5.0	2.5	1.8	2.5v @2.0A	4¼x3⁹⁄₁₆x3¹³⁄₁₆"	21.57	19.42	17.47	13.10

ALLIED LOW-VOLTAGE RECTIFIER TRANSFORMERS

Primary, 115 V, except † 110-120. * Tapped primary for lower voltages.

Stock No.	Mfr's Type	Fig.	Secondary		Case Size HxWxD	Mtg. Ctrs.	EACH			Bulk Packed 100-Up
			Volts	Amps			1-9	10-49	50-99	
705-0126	6K100HF	C*	10/20CT/40CT	.035	1⁷⁄₁₆x2¾x1⅜"	2"	7.18	6.46	5.81	4.36
705R-0127	6K101HF	C*	10/20CT/40CT	.100	1¹¹⁄₁₆x2¹³⁄₁₆x1⅝"	2⅜"	6.30	5.67	5.10	3.83
705R-0128	6K102HF	C*	10/20CT/40CT	.300	2⁵⁄₁₆x3¹¹⁄₁₆x2"	3⅛"	7.65	6.89	6.20	4.65
705-0129	6K103HF	C*	10/20CT/40CT	.750	2⅜x4x2⅜"	3⁹⁄₁₆"	11.83	10.65	9.58	7.18
705-0130	6K104VG	B*	10/20CT/40CT	1.0	3⅛x2⅝x3⅛"	2x2¼"	15.26	13.73	12.35	9.26
705-0131	6K105VBR	A	0/17/18	3.0	3⅛x2¾x2⅞"	2x2⅜"	12.98	11.68	10.51	7.88
705-0132	6K106VBR	A	0/17/18	6.0	3¹³⁄₁₆x3¾x3¼"	2½x2⅝"	13.65	12.29	11.06	9.09
705-0133	6K107VBR	A	0/6.5/13/19.5/26	3.0	3½x2⅞x2⅜	2¼x2⅛"	14.10	12.69	11.42	8.57
705R-0134	6K108VBR	A	0/24/27/30/33/36	3.0	3¹³⁄₁₆x3¾x3¼"	2½x2⅝"	14.73	13.26	11.93	10.41
705-0135	6K109VBR	A†	0/24/27/30/33/36	8.0	4⅝x3¹³⁄₁₆x3⅞	3x3¼"	29.09	26.18	23.56	21.45

For new equipment or replacement use. All types listed are shielded except those indicated by #. Have 8" flexible color-coded leads for easy installation. Plate windings are center-tapped except *half-wave type. 6.3 volt windings are center-tapped except † not center-tapped. ‡Electrostatic shield. All have primaries for operation from 110-120 volt, 50 to 60 Hz AC, except for §60 Hz AC only.

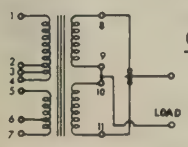
ALLIED'S OWN POWER TRANSFORMERS

Stock No.	Mfr's Type	Fig.	Plate		Filaments			Case Size HxWxD Inches	Mtg. Size MWxMD Inches	EACH			Bulk Packed 100-Up
			VCT	mA	5 V (Amps)		6.3 V (Amps)			1-9	10-49	50-99	
705-0168	6K143HF		C‡	115*	15	.....	0.6†	1¹¹⁄₁₆x2¹³⁄₁₆x1¾	2⅜	9.13	8.22	7.39	5.40
705-0034	6K27VF		E#§	125*	16	.....	0.6†	2x2⅜x1⅝	2	6.21	5.59	5.03	3.77
705-0035	6K28HF		C#	125*	50	.....	2.0†	2⁹⁄₁₆x3¹¹⁄₁₆x2¼	3⅛	8.48	7.63	6.86	5.15
705-0171	6K146HB		D‡§	135*	200	.....	5.5	2⅛x3⅜x2¹³⁄₁₆	2¹³⁄₁₆x2¼	15.90	14.31	12.87	9.65
705-0137	6K111VG		B‡	230	40	.....	1.5	2¾x2⁹⁄₃₂x2½	1¾x1⅝	11.93	10.74	9.66	7.25
705R-0001	6K1VF		E#§	250	25	.....	1.0†	2⅜x2⅞x1⅞	2⅜	6.30	5.67	5.10	3.80
705-0106	6K82VF		E#	380*	20	.....	.....	2⅜x2⅞x2¹⁄₁₆	2⅜	7.42	6.68	6.01	4.50
705-0067	6K49VG		B	460	50	.....	2.5†	3¹⁄₁₆x2⅝x2¹¹⁄₁₆	2x1¾	11.75	10.58	9.52	7.14
705-0002	6K2HB		D	480	40	2	2.0	1¹³⁄₁₆x3x2½	2½x2	11.70	10.53	9.47	6.80
705-0113	6K88VG		B	500	40	.....	2.0	2¾x2¼x2¾	1²⁵⁄₃₂x1⅞	10.33	9.30	8.37	6.28
705-0081	6K56VG		B	540	120	3	3.5	3¹⁵⁄₁₆x3¼x3½	2½x2¼	12.44	11.20	10.08	7.56
705-0005	6K3VG		B	650	40	2	2.0	3¾₁₆x2⅝x2¹¹⁄₁₆	2x1¹¹⁄₁₆	12.60	11.34	10.20	7.65
705-0077	6K54VG		B	680	70	2	2.5	3¹⁄₁₆x2¹⁵⁄₁₆x3¹⁄₁₆	2¼x2³⁄₁₆	14.60	13.14	11.82	8.87
705-0008	6K5HB		D	700	90	3	3.5	2½x3⅜x2¹³⁄₁₆	2¹³⁄₁₆x2¼	16.70	15.03	13.53	10.15
705-0013	6K7VG		B	750	150	3	5.0	3¹⁵⁄₁₆x3¼x4⅜	2½x3¹⁄₁₆	21.65	19.49	17.54	15.13
705-0041	6K31VG		B	1200	200	3	3†, 3†	4⅝x3⅞x4¼	3x3¹⁄₁₆	20.62	18.56	16.70	12.53
705-0155	6K130VG		B§	840	250 ind. 200 cap.			4⅝x3⅞x5¹⁄₁₆	3x3¹⁵⁄₁₆	27.67	24.90	22.41	16.80

TUBE CHECKER TRANSFORMER

Multiple-secondary type for use in tube testers. Primary: 60 Hz. Secondary output volts: 1.1 / 1.4 / 1.5 / 2.0 / 2.5 / 3.0 / 3.3 / 4.0 / 5.0 / 6.3 / 7.0 / 7.5 / 12 / 20 / 25 / 30 / 35 / 50 / 70 / 85 / 110 / 117. Mounting centers 3⁹⁄₁₆". With data sheet.

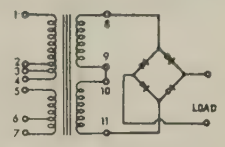
Stock No.	Mfr's Type	Fig.	Primary Input Volts	Size H x W x D	Mtg. Ctrs.	EACH			Bulk Packed 100-Up
						1-9	10-49	50-99	
705-0140	6K114HF	A	125/115/105	2⅝x4x3¹⁄₁₆"	3⁹⁄₁₆"	20.60	18.54	16.68	12.51



Full Wave Center-Tapped

MULTI-TAP SELENIUM RECTIFIER TRANSFORMERS (Not illus.)

For use in full-wave center-tapped or bridge-type circuits with standard rectifiers. Allow a variety of combinations using taps on both windings, plus "aiding" or "bucking" action of extra winding. Permit numerous output voltages in addition to those below. Pri. 117V, 50-60 Hz. †Resistive or inductive load. *Capacitance load.



Full Wave Bridge-Type

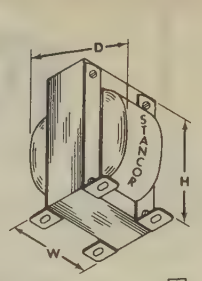
Stock No.	Mfr's Type	Rect. Ckt.	Range of AC Volts	Max. DC Output V†	A*†	V*	Size HxWxD	Mtg. Centers WxD	EACH			Bulk Packed 100-Up
									1-9	10-49	50-99	
705R-0087	6K63VBR	CT	11.5-29.5	11	2	13.6	3x2½x2¾"	2x2⅛"	13.53	12.18	10.96	8.22
		Bridge	11.0-28.5	23	1.25	30.0						
705R-0088	6K64VBR	CT	12.0-29.6	11	4	14.5	3⅜x2⅞x3"	2½x2⅜"	11.82	10.64	9.57	7.17
		Bridge	12.0-29.6	24	2	33.0						
705R-0089	6K65VBR	CT	11.5-29.0	12	8	14.5	3¾x3⅜x3½"	2½x2⅛"	16.29	14.66	13.19	9.89
		Bridge	11.5-29.0	24	4	32.2						
705-0090	6K66VBR	CT	12.0-29.5	11.5	12	14.2	4⅛x3½x3⅞"	2¾x3¼"	21.83	19.65	17.68	13.26
		Bridge	12.0-29.5	24	6	32.0						
705-0091	6K67VBR	CT	12.0-29.0	11	15	14.5	4⅝x3¾x5"	3x3¾"	31.20	28.08	25.27	18.95
		Bridge	12.0-29.0	23	8	32.0						

Control Transformers and Power Controls

CONTROL TRANSFORMERS

Typical applications include: relays, pilot lamps, solenoids, small motors, speed changers, pumps, electronic tubes, heating elements, elevators, door openers, automatic musical instruments. 115-230 volts, 50-60 Hz AC.

Stock No.	Mfr's Type	Fig.	Secondary Parallel	Secondary Series	Size Inches HxWxD	Mtg. Ctrs. Inches	Wt., Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk Pkd. 100-Up
928R3000	P-6375	A	6V @ 2A	12V @ 1A	2⅜x2⅛x1⅝	2⅜	1	8.13	6.50	4.39	3.41
928-3001	P-6376	A	6V @ 4A	12V @ 2A	2¾x3⅛x1⅞	2 13/16	1½	9.75	7.80	5.27	4.10
928R3002	P-6377	A	12V @ 4A	24V @ 2A	3¼x3⅝x2¼	3¼	2½	12.50	10.00	6.76	5.25
928R3003	P-6378	B	12V @ 8A	24V @ 4A	3 7/16x2 13/16x2⅞	2¼x2¼	4¼	13.78	12.38	11.14	8.66
928-3004	P-6379	B	12V @ 16A	24V @ 8A	4 7/16x3 7/16x3⅜	3x2¾	8	25.05	22.51	20.26	15.76
928-5091	P-8615	A	24V @ 0.5A	48V @ 0.25A	2⅜x2⅛x1⅝	2⅜	1	9.00	7.20	4.86	3.78
928-5092	P-8616	A	24V @ 1A	48V @ 0.5A	2¾x3⅛x1⅞	2 13/16	1½	10.25	8.20	5.53	4.30
928-5093	P-8617	A	24V @ 2A	48V @ 1A	3¼x3⅝x2¼	3¼	2½	12.50	10.00	6.76	5.25
928-5094	P-8618	B	24V @ 4A	48V @ 2A	3 7/16x2 13/16x2⅞	2¾	4¼	13.53	12.15	10.94	8.51
928-5095	P-8619	B	24V @ 8A	48V @ 4A	4 7/16x3 7/16x3⅜	2¾	8	20.04	18.00	16.20	12.60



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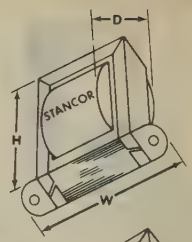

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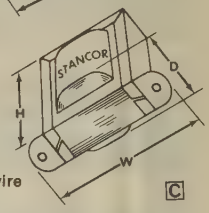


C

C MINIATURIZED CONTROL TRANSFORMERS

• For High Speed Automatic Equipment

Provide trouble-free performance in high speed automatic equipment. Applications include: small motors, speed changers, pumps, automatic musical instruments, and many other mechanical and electric devices. All have 117 volt AC primary; 12, 24, 28 or 36 volt secondary. All types have lead wire terminations.

• Ideal for Motors, Pumps, Speed Changers, Other Devices

Primary 117 volts, 60 Hz AC; secondary, 12 volts. Lead wire terminations.

Stock No.	Mfr's Type	Secondary Amps rms	Bridge	Half-Wave	Size Inches HxWxD	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk Pkd. 100-Up
928-4046	P-8390	.150	.100 DC	.050 DC	1¼x2⅛x1¼	¼	5.63	4.50	3.04	2.36
928-4047	P-8391	.350	.225 DC	.110 DC	1⅝x2⅜x1⅜	⅓	5.63	4.50	3.04	2.36
928-4048	P-8392	.700	.450 DC	.225 DC	1⅝x2⅜x1⅝	⅔	6.25	5.00	3.38	2.63

Primary 117 volts, 60 Hz AC; secondary 24 volts CT. Lead wire terminations.

Stock No.	Mfr's Type	Secondary Amps rms	Bridge	Half-Wave	Size Inches HxWxD	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk Pkd. 100-Up
928-4050	P-8394	.085	.135 DC	.065 DC	1¼x2⅛x1¼	¼	6.88	5.50	3.71	2.89
928-4051	P-8395	.200	.275 DC	.135 DC	1⅝x2⅜x1⅜	⅓	6.88	5.50	3.71	2.89
928-4052	P-8396	.400	.550 DC	.270 DC	1⅝x2⅜x1½	⅔	7.50	6.00	4.05	3.15
928-4053	P-8397	.700	.925 DC	.450 DC	2x3¼x1⅝	1	8.00	6.40	4.32	3.36

Primary 117 volts, 50-60 Hz AC; secondary 28 volts CT. Lead wire terminations.

Stock No.	Mfr's Type	Secondary Amps rms	Bridge	Half-Wave	Size Inches HxWxD	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk Pkd. 100-Up
928-4601	P-8601	.175	.225 DC	.125 DC	1⅜x2⅜x1⅜	⅓	6.63	5.30	3.58	2.78
928-4603	P-8603	.800	1.00 DC	.500 DC	1⅝x3¼x2	1	8.00	6.40	4.32	3.36

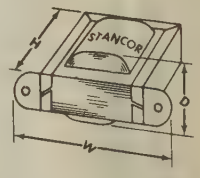
Primary 117 volts, 50-60 Hz AC; secondary 36 volts CT. Lead wire terminations.

Stock No.	Mfr's Type	Secondary Amps rms	Bridge	Half-Wave	Size Inches HxWxD	Wt. Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk Pkd. 100-Up
928-4612	P-8612	.300	.350 DC	.200 DC	1⅜x2⅜x1¾	⅔	6.25	5.00	3.38	2.63
928-4613	P-8613	.550	.650 DC	.350 DC	1⅝x3¼x2	1	8.00	6.40	4.32	3.36

F LOW CURRENT CONTROL TRANSFORMERS

Three isolated secondaries to provide many combinations of output voltages and currents. May be series or parallel connected. Applications include: pilot light, miniature relays, low-current, low-voltage power supplies. Lead wire terminations. Color-coded (Two black leads for primary; brown and silver leads for 1st secondary; blue and red leads for 2nd secondary; green and yellow leads for 3rd secondary, with green/yellow center tap lead). 117 V, 60 Hz primary, 12-V secondaries.

Stock No.	Mfr's Type	Amps Each Sec.	Size Inches HxWxD	Wt., Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk Pkd. 100-Up
928-4020	P-8361	.10	1¾x2x1½	⅛	8.13	6.50	4.39	3.41
928-4021	P-8362	.15	2x2⅜x1¾	¼	7.50	6.00	4.05	3.15
928-4023	P-8364	.50	2⅝x2⅞x2⅛	1¼	8.50	6.80	4.59	3.57

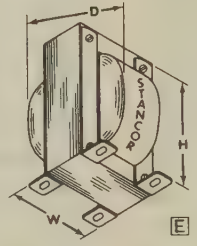


F

ISOLATION TRANSFORMERS

All have electrostatic shields grounded internally to core. Rms insulation test: 1500 V. *Primary is tapped for 125, 115 and 105 V; 115-volt secondary. †Isolation testing transformer with 117 V primary; has tapped secondary with three standard receptacles for 105, 115 and 125 volts. ‡117 V primary and 117 V secondary.

Stock No.	Mfr's Type	Fig.	Size Inches HxWxD	Watts	Wt., Lbs.	EACH 1-9	EACH 10-24	EACH 25-99	Bulk Pkd. 100-Up
928-2075	P-6160*	D	4 1/16x3¾x3¾	100	7	27.97	25.13	22.62	17.59
928-2076	P-6161*	D	4 1/16x3¾x5½	250	14¼	38.41	34.51	31.06	24.15
928-3010	P-6410‡	D	3½x2 13/16x3⅜	50	4	14.03	12.60	11.34	8.82
928-3014	P-6413	....	1¾x2½x1¼	1500	⅛	5.25	4.20	2.84	2.21
928-3012	P-6415†	E	5⅞x4⅝x5 11/16	350	17	46.25	41.56	37.41	29.09



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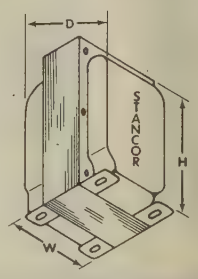


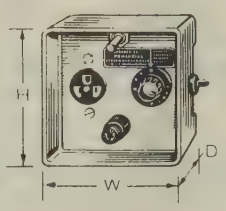
D

POWERDIAL SOLID STATE SCR POWER CONTROLS

- **Output Continuously Adjustable—AC or DC**
- **No Brush Burn-out or Wear**
- **One-half the Size, One-tenth the Weight, and Less Expensive than Conventional Autotransformers**

Solid state power control using Silicon Controller Rectifiers. Controls voltage and therefore regulates other quantities such as power, current, heat, motor speed and light. Will replace and have many advantages over variable autotransformers. Load current passes through solid state elements, eliminating brush wear or burn-out problems. Can give AC or DC output by merely flicking a switch. Less expensive to install than autotransformers—and they cost less.

PD SERIES. Bench Models. Aluminum casting provides light but rugged case. 3-prong plug and receptacle affords safety in electrical connections. Fused against overloads. For 120 volts, 50 to 60 Hz. **PDU SERIES.** Suitable for panel mounting. May be wired for AC or DC output. Two-wire connection. Aluminum mounting bracket and phenolic case provide lightweight, small, easily mountable control. Distance between center of oval mounting holes is 3 9/32" which is standard for electrical outlet and switch boxes. Must be externally fused against overloads. PDU operates at 120 volts, 2PDU at 240 volts, both at 50 to 60 Hz. All may be controlled from one or more remote locations with a motor control system.



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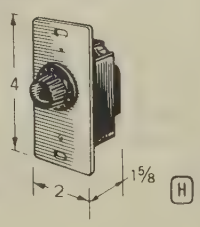

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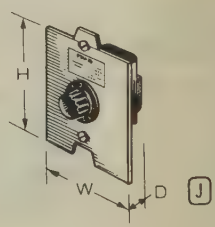
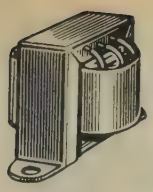


J

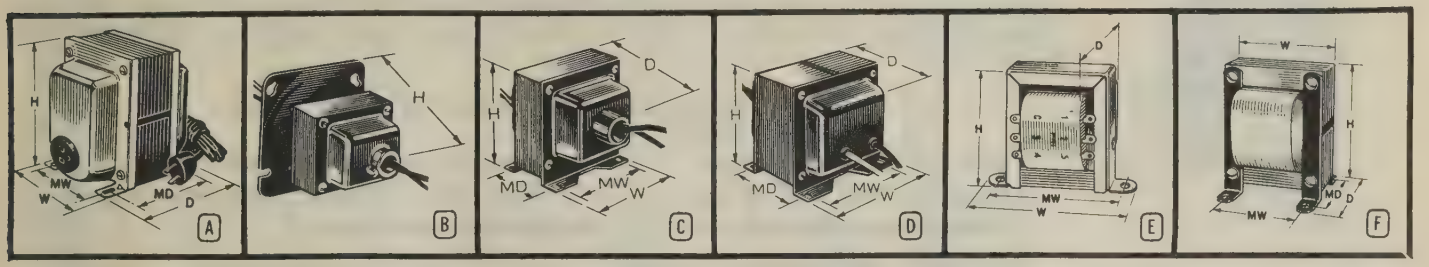
Stock No.	Mfr's Type	Fig.	rms AC	Amps DC	AC Volts In	AC Volts Out	rms Output Volts DC	Size, In. HxWxD	Wt., Lbs.	EACH 1-4	EACH 5-9	EACH 10-Up
847-9208	PD-100	G	0-10	0-7.5	120	0-120	0-85	4½x6x2½	2½	44.00	35.20	31.68
847-9220	PDU-50	H	0-5	0-5	120	0-120	0-85	4x2x1⅝	½	23.08	18.46	16.61
847-9226	PDU-150	J	0-15	0-10	120	0-120	0-85	4½x4½x3¾	1	88.00	70.40	63.36
847-9244	2PDU-100	J	0-15	0-7.5	240	0-240	0-170	4x4x1⅝	¾	57.20	45.76	41.18

Allied® Multi-Purpose Transformers



Allied transformers are specially built to Allied Electronics' high standards for quality, stability and long-term performance. Quantities of 100 and up are shipped bulk-packed F.O.B. **Chicago, IL.** Phone, wire or write Allied Electronics for pricing on quantities of 250 or more, or simply contact your nearest Allied Electronics' facility.

TRANSFORMERS



230-TO-115 VOLT STEP-DOWN AUTOTRANSFORMERS

Well-built units to reduce 220-250 volts, 50-60 Hz AC to 110-125 volts. Black enamel finish.
With 8-ft. cord and plug, except † types. Female outlet on case, except † types.

Stock No.	Mfr's Type	Fig.	Input Volts	Output Volts	VA Outputs	Size H x W x D Inches	Mtg. Ctrs. MW x MD	Wt., Lbs.	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705R0092	6K68HF†	.....	230	115	20	2x3¼x2	2 13/16	1¼	6.05	5.45	4.90	3.68
705R0093	6K69HF†	.....	230	115	40	2 5/16x3⅜x2⅛	3⅛	1¾	7.85	7.07	6.36	4.77
705R0019	6K12VCP	A	230	115	80	3⅝x3x3¼	2¼x1⅞	3¼	12.75	11.48	10.33	7.75
705R0029	6K22VCP	A	230	115	100	3½x2⅞x3⅜	2¼x2	4	14.65	13.19	11.87	8.90
705R0020	6K13VCP	A	230	115	150	4x3⅜x3⅜	2½x2¼	4¾	15.18	13.66	12.29	9.22
705R0021	6K14VCP	A	230	115	250	4⅝x3⅞x4¼	3x2 13/16	7¾	16.05	14.45	13.00	11.54
705R0022	6K15VCP	A	230	115	500	4⅝x3⅞x4¾	3x3 5/16	10	37.75	33.98	30.58	22.94
705R0030	6K24VCP	A	230	115	750	5½x4⅝x5	3½x3¼	13¾	37.76	33.98	30.58	22.94
705R0027	6K20VCP	A	230	115	1000	5¼x4⅝x5¼	3½x3½	14¾	60.40	54.72	49.24	36.93
705R0031	6K25VCP	A	230	115	1500	6x4½x5⅝	3 1/16x3 9/16	19	55.44	49.90	44.91	33.68
705R0028	6K21VCP	A	230	115	2000	6x4½x6⅝	3 1/16x4⅜	25	62.91	56.62	50.95	38.21

115-TO-230 VOLT STEP-UP AUTOTRANSFORMERS

For operation of 230-V appliances from 110-125 V 50-60 Hz AC. With 8-ft. cord and AC outlet.

Stock No.	Mfr's Type	Fig.	Input Volts	Output Volts	VA Outputs	Size H x W x D Inches	Mtg. Ctrs. MW x MD	Wt., Lbs.	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705R0124	6K97VCP	A	115	230	80	3⅝x3x3¼	2¼x1⅞	3¼	14.48	13.03	11.72	8.79
705R0084	6K60VCP	A	115	230	150	4x3⅜x3⅜	2½x2¼	4¾	16.59	14.93	13.43	10.07
705R0125	6K98VCP	A	115	230	500	4⅝x3⅞x4¼	3x3 5/16	10¼	29.98	26.98	24.28	18.21

10

ISOLATION TRANSFORMERS

Reduce shock hazard, protect equipment. 6-ft. cord, plug and receptacle, except * types. 115 VAC output.

Stock No.	Mfr's Type	Fig.	Input Volts	Output Volts	VA Outputs	Size H x W x D Inches	Mtg. Ctrs. MW x MD	Wt., Lbs.	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705R0138	6K112HF*	.....	115	115	35	2 5/16x3 1/16x2¼	3⅛	1¾	9.13	8.22	7.39	5.54
705R0165	6K140HF*	.....	115/230	115	50	2 5/16x3 1/16x2⅛	3⅛	2	12.80	11.52	10.36	7.77
705R0048	6K38VCP	A	115	115	50	3⅝x3x3⅜	2¼x1⅞	3¾	14.43	12.99	11.69	8.77
705-0025	6K18VCP	A	115	115	100	4⅜x3⅜x4	2¾x2¾	6½	23.11	20.88	18.79	14.09
705-0164	6K139VCP	A	115	115	150	3⅞x3¼x4 7/16	2½x2 15/16	7¼	25.54	22.99	20.69	15.51
705R0026	6K19VCP	A	115	115	250	4⅝x3⅞x4⅝	3x3⅜	10	40.46	36.41	32.76	24.57

U.L. RECOGNIZED CONTROL TRANSFORMERS

For 120-V or low voltage 24-V line. 50/60 Hz. 240-480-V primaries must be series connected for 480-V; parallel connected for 240-V.
* Mounts to standard conduit box.

Stock No.	Mfr's Type	Fig.	Pri. V	Sec. V	VA Rating	Size H x W x D Inches	Mtg. Ctr's. W x D In.	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705-0172	6K 147	B	120	24	50	4 5/32x4 5/32x4	*	15.75	14.18	12.76	9.57
705-0173	6K 148	C	120	24	100	3½x3¾x4¼	3¼x1 13/16	18.43	16.59	14.93	11.19
705-0174	6K 149	C	120	24	150	3½x3¾x5	3¼x2 5/16	19.07	17.16	15.44	11.58
705R0175	6K 150	D	120	24	250	4x4½x4⅞	3¾x3 5/16	28.50	25.65	23.08	17.31
705-0180	6K 155	B	480/240	24	50	4 5/32x4 5/32x4	*	16.00	14.40	12.96	9.72
705-0181	6K 156	C	480/240	24	100	3½x3¾x4¼	3¼x1 13/16	19.54	17.59	15.83	11.87
705-0182	6K 157	C	480/240	24	150	3½x3¾x5	3¼x2 5/16	20.33	18.30	16.47	12.35
705-0183	6K 158	D	480/240	24	250	4x4½x4⅞	3¾x3 5/16	30.41	27.37	24.63	18.47

CONTROL TRANSFORMERS

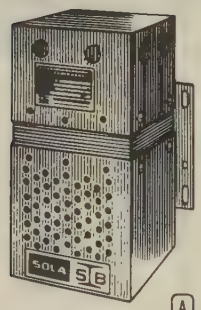
Automation types for high-speed automatic equipment. Adapted to relays, pilot lamps, solenoids, small motors, etc. Also use in high current, low voltage power supplies. Secondaries have two identical windings for series or parallel operation. Primaries operate from either 115 or 230 V, 50-60 Hz AC.

Stock No.	Mfr's Type	Fig.	Parallel Sec. Volts	Parallel Sec. Amps	Series Sec. Volts	Series Sec. Amps	Size H x W x D	Mtg. Ctrs.	EACH 1-9	EACH 10-49	EACH 50-99	Bulk Packed 100-Up
705R0101	6K77VFL	E	6	2	12	1	2⅜x2⅞x1⅜	2⅜	7.08	6.38	5.74	4.30
705R0102	6K78VFL	E	6	4	12	2	2⅜x3⅛x2	2 13/16	8.63	7.77	6.99	5.24
705R0103	6K79VFL	E	12	4	24	2	3⅛x3⅝x2¼	3¼	11.06	9.95	8.95	6.71
705R0104	6K80VBR	F	12	8	24	4	3⅝x2⅞x3	2¼x2⅜	15.30	13.77	12.39	9.29
705R0144	6K119VBR	F	12	16	24	8	4⅛x3 7/16x3⅞	2¾x3	20.63	18.57	16.71	12.73

Contact Allied for Larger Quantity Prices

Constant-Voltage Transformers

CV TRANSFORMERS TO SOLVE ANY VOLTAGE PROBLEM



A

Got power problems? Allied Electronics' broad line of rugged, highly versatile voltage transformers can practically eliminate your voltage variation troubles once-and-for-all. Use as an accessory or as an integral part to other electrical components, instruments, power supplies or equipment . . . makes them work better, function more efficiently, and last longer. Here's what you get with our voltage transformers —

- **Compact, Rugged, Extremely Economical Design for Max. Flexibility of Application**
- **Ultra-Fast Regulating Action**
- **Response Time 1½ Hz or Less**
- **Output Stabilized to Within 1%**
- **Protection Against Short Circuits**
- **No Manual Adjustments Required**
- **No Moving Parts, Nothing to Service or Replace**
- **Negligible External Field**
- **Protection Against Voltage Surges**

B

C

Static-magnetic voltage regulators accept input variations up to ±15% and regulate to ±1%. Response time 1½ Hz (25 msec) or less. CVS: less than 3% harmonic distortion at full load; newer CVS delivers sine wave output; recommended for all AC applications. CVN: transformer for DC, delivers square wave and average 20% rms harmonic content. Figure **A** = exposed core, end housings, screw type terminals in outlet box; Figure **B** = drawn case, integral capacitor; Figure **C** = exposed core, end bells, separate capacitor. *Suffix F in Stock No., shipped FOB Elk Grove, Illinois.*

Brown-outs are Due to Low Line Voltage Caused by Power Cutbacks; Increase of Power Line Transients from Lightning or Switching of Power or Equipment; Increased Speed and Sensitivity of New EDP Equipment and Computers. These Factors Create a Critical Necessity for Achieving Consistent, Reliable Power—and Constant Voltage Transformers Solve the Problem

SINUSOIDAL TYPES CVS — 60 Hz DUTY

Stock No.	Mfr's. Type	Voltage Rating		VA	Nominal Size (Inches)		Fig.	Use Adapt. Kit	Wt., Lbs.	EACH	
		Output	Input		Outline	Mounting				1-9	10-Up
921-3150	23-13-030-2	118	95-130	30	$6^{1}/_{8}$x4x$5^{3}/_{16}$	3x$3^{1}/_{2}$	A	d	8	60.79	48.63
921R3200	23-13-060-2	118	95-130	60	$6^{15}/_{16}$x4x$5^{3}/_{16}$	3x$3^{1}/_{2}$	A	d	10	72.31	57.85
921R3300	23-22-112-2	118	95-130/190-260	120	8x4x$5^{3}/_{16}$	3x$3^{1}/_{2}$	A	d	14	92.77	74.22
921R3350	23-22-125	118	95-130/190-260	250	$9^{5}/_{8}$x$5^{3}/_{8}$x$7^{7}/_{16}$	$4^{1}/_{8}$x$4^{3}/_{4}$	A	b	28	126.25	101.00
921-3700	23-23-125	118	190-260/380-520	250	10x$5^{3}/_{8}$x$7^{7}/_{16}$	$4^{1}/_{8}$x$4^{3}/_{4}$	A	b	49	134.10	107.28
921R3400	23-22-150	118	95-130/190-260	500	$12^{7}/_{16}$x9x$6^{7}/_{16}$	$5^{5}/_{8}$x$8^{1}/_{8}$	A	c	45	205.85	164.46
921-4250	23-26-150	118/236	190-260/380-520	500	$12^{7}/_{16}$x9x$6^{7}/_{16}$	$5^{5}/_{8}$x$8^{1}/_{8}$	A	c	46	203.65	162.92
921-3800	23-25-175	118/236	95-130/175-235 190-260	750	$16^{13}/_{16}$x9x$6^{7}/_{16}$	$5^{5}/_{8}$x$8^{1}/_{8}$	A	c	54	262.95	210.36
921R3850	23-25-210	118/236	95-130/175-235 190-260	1000	$17^{15}/_{16}$x9x$6^{7}/_{16}$	$5^{5}/_{8}$x$8^{1}/_{8}$	A	c	72	326.30	256.25
921-3900	23-25-215	118/236	95-130/175-235/ 190-260	1500	$19^{5}/_{16}$x$10^{11}/_{16}$x$9^{1}/_{32}$	$3^{15}/_{16}$x$11^{3}/_{4}$	A	. . .	128	431.50	345.20
921-3950	23-25-220	118/236	95-130/175-235/ 190-260	2000	$19^{15}/_{16}$x$12^{3}/_{4}$x$10^{11}/_{16}$	$4^{1}/_{2}$x$11^{3}/_{4}$	A	. . .	140	545.18	436.14
921-4350	23-26-220	118/236	190-260/380-520	2000	$19^{15}/_{16}$x$12^{3}/_{4}$x$10^{11}/_{16}$	$4^{1}/_{2}$x$11^{3}/_{4}$	A	. . .	148	546.67	437.34
921-4000	23-25-230-3	118/236	95-130/175-235 190-260	3000	$21^{7}/_{8}$x$12^{3}/_{4}$x$10^{11}/_{16}$	$6^{7}/_{16}$x$11^{3}/_{4}$	A	. . .	194	757.76	606.20

NORMAL HARMONIC TYPES CVN — 60 Hz DUTY

Stock No.	Mfr's. Type	Voltage Rating		VA	Nominal Size (Inches)		Fig.	Use Adapt. Kit	Wt., Lbs.	EACH	
		Output	Input		Outline	Mounting				1-9	10-Up
921-1000	20-10-015	118	95-130	15	$5^{5}/_{16}$x$2^{5}/_{8}$x$3^{1}/_{2}$	$5^{1}/_{16}$x$1^{1}/_{8}$	B	. . .	4	42.50	34.00
921-1850	20-14-030	118	95-130	30	$4^{5}/_{16}$x$2^{5}/_{8}$x$3^{5}/_{16}$	$1^{7}/_{8}$x$2^{3}/_{8}$	C	. . .	5	44.67	35.74
921-1250	20-13-112-2	118	95-130	120	$7^{3}/_{8}$x4x$5^{3}/_{16}$	3x$3^{1}/_{2}$	A	d	12	80.74	64.59
921-2250	20-22-125	118	95-130/190-260	250	$11^{1}/_{16}$x$6^{15}/_{16}$x$6^{7}/_{16}$	$4^{9}/_{16}$x$6^{15}/_{16}$	A	c	25	119.40	95.52
921-2350	20-22-210	118	95-130/190-260	1000	$15^{1}/_{8}$x$6^{15}/_{16}$x$6^{7}/_{16}$	$4^{9}/_{16}$x$6^{1}/_{8}$	A	. . .	48	302.50	242.00

CURRENT LIMITATION

As a load is increased beyond the rated value, the output voltage drops rapidly to zero. At short-circuit, the output current is limited to approx. 125-200% of rated value. Units can be operated indefinitely at short-circuit without damage.

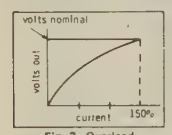


Fig. 2. Overload

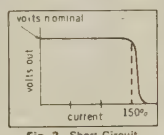
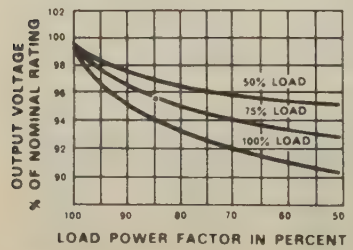


Fig. 3. Short-Circuit

LOAD POWER FACTOR

"Median" value of output voltage will vary from nameplate rating if load has power factor other than that for which the transformer was designed. Load regulation will also be relatively greater as inductive load power factor is decreased. However, resulting median values of output voltage will be regulated against line changes at any reasonable load or power factor.

Change in "Median" Output Voltage Versus Load Power Factor



CORD/RECEPTACLE ADAPTER KITS FOR "A" STRUCTURES

The convenience of an input plug and output receptacle on CV transformers in "A" type housings. Easily wired to standard terminal arrangement located under top plate of housing. Correct part number is indicated under "Adapter Kit" in lists for CVS and CVN types.

Style d

Styles b and c

Stock No.	Mfr's Type	Style Code	Input Cord	Output Recept.	EACH	
					1-9	10-Up
921-6200	999-104	d	2-wire	2-wire	14.25	12.40
921-6100	999-019	b	3-wire	3-wire	14.25	12.40
921-6000	999-009	c	2-wire	2-wire	14.25	12.40
921-6150	999-020	c	3-wire	3-wire	14.25	12.40

Allied Electronics Can Meet All Your Transformer Requirements

Variable Autotransformers

Deliver continuously adjustable output voltages from AC power lines without introducing any wave form distortion or SCR generated noise. All models feature gold plated commutator surface, excellent regulation, high efficiency and conservative ratings. Proprietary process bonds the winding to the core assembly, providing rugged and reliable units capable of long life with minimum maintenance. All are for 50/60 Hz, except *60 Hz only and †60 Hz only with over voltage output.

SINGLE PHASE MODELS (PANEL OR BENCH MOUNTING)

Type numbers without suffix are open styles designed for back-of-panel mounting. Types with suffix "C" have coil enclosed in a metal enclosure. Types with suffix "CT" have coil and terminals housed in metal enclosures, for panel/conduit mtg.

SINGLE PHASE MODELS—120 VOLTS INPUT

Stock No.	Mfr's Type	Fig.	Input Volts	Output			Size, Inches (AxBxC)	Wt., Lbs.	EACH		
				Volts	Amps	kVA			1-9	10-24	25-Up
927R3171	171†	D	120	0-120/132	1.75	0.23	2 13/16x2 13/16x2 1/16	3	14.96	13.46	11.95
927R3201	201†	D	120	0-120/132	2.0	0.26	2 13/16x2 13/16x2 1/16	3	15.23	13.71	12.34
927-3225	221†	D	120	0-120/132	2.25	0.30	2 13/16x2 13/16x2 1/16	3	15.70	14.13	12.71
927-3251	251†	D	120	0-120/132	2.5	0.33	2 13/16x2 13/16x2 7/16	3½	16.12	14.51	12.98
927R3291	291†	D	120	0-120/132	3.0	0.39	2 13/16x2 13/16x2 7/16	3½	16.59	14.93	13.28
927-3375	371†	E	120	0-120/140	3.75	0.53	3¾x3¾x3¼	5	24.00	21.60	19.20
927R5501	501	E	120	0-120/140	5.0	0.70	3¾x3¾x3 9/16	6	24.11	21.70	19.29
927R6010	1010	F	120	0-120/140	10.0	1.4	5 1/16x5x4 3/16	11	31.75	28.58	25.40
927-6011	1010CT	G	120	0-120/140	10.0	1.4	6⅞x5x4 7/16	12	42.49	38.24	33.99
927-6125	1210CT*	G	120	0-120	12.0	1.4	6⅞x5x4 7/16	12	44.10	39.69	35.28
927-6135	SQ1210*	F	120	0-120	12.0	1.4	5 5/16x4¼x4 5/32	11	36.60	32.94	29.28
927-6140	SQ1010	F	120	0-120	10.0	1.4	5 5/16x4¼x4 5/32	11	34.25	30.83	27.40
927-6210	1210*	F	120	0-120	12.0	1.4	5 1/16x5x4 3/16	11	34.10	30.69	27.28
927X7501	1510	H	120	0-120/140	15.0	2.1	6⅝x6½x4¾	20	58.21	52.39	46.57
927-6155	1510C	J	120	0-120/140	15.0	2.1	6⅝x6¼x5⅝	21	64.68	58.21	51.75
927-6160	2510C	J	120	0-120/140	25.0	3.0	8¼x7⅝x6¼	24	91.73	82.56	73.38
927X8001	2510	H	120	0-120/140	25.0	3.5	8¼x7⅝x4¼	23	84.67	76.20	67.74
927X8006	2510CT	J	120	0-120/140	25.0	3.5	9¾x7⅝x4¼	24	101.75	91.58	81.40

SINGLE PHASE MODELS—240 VOLTS INPUT

927-2341	252	D	240	240/264	0.8	0.21	2 13/16x2 13/16x2⅛	3	25.28	22.75	20.22
927-6120	1020	F	240	0-240/280	3.5	0.98	5 1/16x5x4 3/16	11	38.22	34.40	30.58
927-6145	SQ1020	F	240	0-240/280	3.5	0.98	5 5/16x4¼x4 5/32	11	40.72	36.65	32.58
927-6130	1220CT	G	240	0-240	5.0	1.2	6⅞x5x4 7/16	11	49.98	44.98	39.98
927-6150	SQ1220*	F	240	0-240	5.0	1.2	5 5/16x4¼x4 5/32	11	43.07	38.76	34.46
927X7507	1520	H	240	0-240/280	9.5	2.7	6⅝x6½x4¾	20	58.21	52.39	46.57
927X8500	2520	H	240	0-240/280	10.0	2.8	8¾x7⅝x4¼	23	84.67	76.20	67.74
927-6165	2520C	J	240	0-240/280	10.0	2.8	8¼x7⅝x6¼	24	91.73	82.56	73.38
927-6170	5020C	K	240	0-240/280	28.0	7.8	15¾x13⅞x7⅛	60	217.56	195.80	174.05

PORTABLE MODELS

Prefix "3PN" indicates 3-prong cord, plug and receptacle; prefix "2PF" indicates 2-wire cord, plug and receptacle. All models are housed in a rugged steel enclosure and supplied with input linecord and plug with matching receptacle, on-off switch, fuse, pilot light. Available for 120 Volt AC or 240 Volt AC input.

CORD AND PLUG TYPE—120 VOLTS INPUT

Stock No.	Mfr's Type	Fig.	Input Volts	Output			Size, Inches	Wt., Lbs.	EACH		
				Volts	Amps	kVA			1-9	10-24	25-Up
927-2171	2PF171	A	120	0-132	1.75	0.23	3⅜x3⅜x3½	3½	29.45	26.50	23.56
927-2170	2PF501	A	120	0-120/140	5.0	0.70	4½x6x5⅜	9	38.85	34.97	31.08
927-2302	3PN501	A	120	0-120/140	5.0	0.70	4½x6x5⅜	9	44.78	40.30	35.82
927R2175	2PF1010	B	120	0-120/140	10.0	1.4	6⅞x5x4 7/16	13	42.92	38.63	34.34
927R2303	3PN1010	B	120	0-120/140	10.0	1.4	6⅞x5x4 7/16	13	49.50	44.55	39.60
927-2305	3PN1210	B	120	0-120	12.0	1.4	6⅞x5x4 7/16	13	55.86	50.00	44.69
927-2339	3PN1510	C	120	0-120/140	15.0	2.1	9x6⅜x6⅞	22	81.73	73.56	65.38
927X2309	3PN2210	C	120	0-140	22.0	3.1	9⅝x7⅝x4½	25	130.43	117.39	93.91

CORD AND PLUG TYPE—240 VOLTS INPUT

927-2306	3PN1220*	C	240	0-240	5.0	1.2	6⅞x5x4 7/16	13	59.39	53.45	47.51
927X2330	3PN2520	C	240	0-280	10.0	2.8	9⅝x7⅝x4¼	25	118.78	106.90	95.02

DELUXE LABORATORY MODELS

Deluxe portable styles housed in attractive aluminum enclosures with carrying handle and complete with 3-wire line cord, plug, receptacle, pilot light, switch and circuit breaker. Both deluxe styles are UL and CSA approved.

Stock No.	Mfr's Type	Fig.	Input Volts	Output		Output KVA	Size, Inches	Wt., Lbs.	EACH		
				Volts	Amps				1-9	10-24	25-Up
927X0500	E171*	M	120	0-132	1.75	0.23	4⅜x10 13/16x3⅝	10	41.27	37.14	33.02
927X0505	E1010	M	120	0-120/140	10.0	1.4	6⅞x11 7/16x5⅞	20	91.93	82.74	73.54

ISOLATED VARIABLE TRANSFORMERS

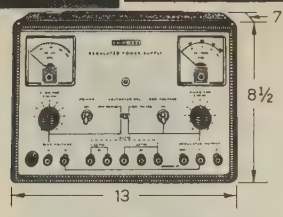
For use in industrial, medical or educational applications where the safety of isolation is required. Output voltage is completely isolated from the power line (input voltage). DC output is rated equal to the isolated AC output on all models. Either side of output can be grounded independently of supply line. All units are U.L. Listed and CSA approved. Ventilated case; 0-150 V voltmeter; circuit breaker; pilot light; banana jacks; on/off switch; 6-ft. cord with NEMA standard 3-prong plug and receptacle.

Stock No.	Mfr's Type	Fig.	Input Volts	Output			Size, Inches	Wt., Lbs.	EACH	
				Volts	AC Amps	DC Amps			1-9	10-Up
927X2002	EJ401V	N	120	0-140	4.0	4.0	10x15 1/16x5⅞	31	146.48	131.83
927X2003	EJ901V	N	120	0-140	9.0	9.0	10x18 1/16x7½	37	207.17	186.45

MANUFACTURER'S CROSS REFERENCE

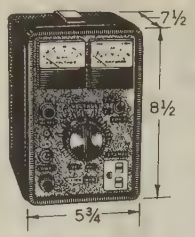
Stace	Amp	Superior Electric	Amp	General Radio Co.	Amp	Ohmite Mfg. Co.	Amp	General Electric	Amp	Stace	Amp	Superior Electric	Amp	General Radio Co.	Amp	Ohmite Mfg. Co.	Amp	General Electric	Amp
171	1.75					VT1	1.0			3PN1220	5.0	3PN217B	5.0						
2PF171	1.75	2PF10	1.0			VT2F	1.75			1510	15.0	126U	15.0					9T92Y27	15.0
201	2.0					VT02	2.0			1510C	15.0	126	15.0						
221	2.25	10B	2.25							3PN1510	15.0	3PN126	15.0					9T92Y88	15.0
251	2.5							9T92A1	2.5	1520	9.5	226U	7.5	W20H	8.0			9T92Y30	8.5
252	0.8	12	0.7							2510	25.0	136U	22.0	W20	20.0	VT20	20.0	9T92Y28	18.0
291	3.0					VT3	3.0			2510C	25.0	136	22.0						
371	3.75			W2	2.4	VT4	3.5			2510CT	25.0	136BT	22.0	W20M	20.0	VT20B	20.0	9T92Y28G2	18.0
501	5.0	21	4.5	W5	6.0			9T92A5	4.5	3PN2210	22.0	3PN136B	22.0	W20MT3	18.0			9T92Y89	18.0
2PF501	5.0			W5MT	5.0					2520	10.0	236B4	10.0	W20H	8.0			9T92Y30	8.5
3PN501	5.0			W5MT3	5.0			9T92A91	4.5	2520C	10.0	236B	10.0						
1010	10.0	116BU	10.0	W10	10.0	VT8	7.5	9T92A9	10.0	3PN2520	10.0	3PN236B	10.0	W20HMT3	8.0			9T92A97	8.5
1010CT	10.0	116BT	10.0	W10M	10.0			9T92A9G2	10.0	5020C	28.0	1256D	28.0					9T92Y51G2	30.0
2PF1010	10.0	116B	10.00	W10MT	10.00	VT8F	7.5			E171	1.75	N10B	2.25						
3PN1010	10.0	3PN116B	10.0	W10MT3	10.0	VT8FC	7.5	9T92A87	10.0	E1010	10.0	N116B	10.0	W10MT3	10.0				
1020	3.5	216BU	3.5	W10H	4.0	VT8H	3.0	9T92A13	4.0	E1010V	10.0	N116BK	10.0	W8MT3VM	10.0				
1210	12.0	117BU	12.0			VT8N	10.0	9T92A10	12.0	SQ1210	12.0	Q117U	12.0						
1210CT	12.0	117BT	12.0					9T92A10G2	12.0	SQ1010	10.0	Q116U	10.0						
3PN1210	12.0	3PN117B	12.0							SQ1020	3.5	Q216U	3.5						
1220CT	5.0	217BT	5.0					9T92A14G2	5.0	SQ1220	5.0	Q217U	5.0						

Power Supplies and Inverters



DUAL POWER SUPPLY

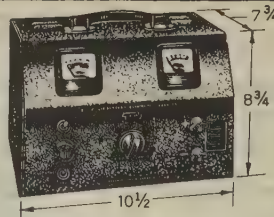
MODEL 1030-W. Dual independent, variable regulated DC outputs, plus dual unregulated filament voltages. Reg. B+: 0-400 VDC. Reg. Bias: 0 to —150 VDC. Filament V, 6.3 and 12.6 VAC at 3 A. 13x 8½x7". For 110-120 V, 50-60 Hz. AC. Shpg. wt. 21 lbs.
775X1031. Factory Assembled .. Each 163.61
4-Up ..... Each 139.95



DELUXE CHARGER/ ELIMINATOR

Front Panel Meters Show DC Volts, Current.

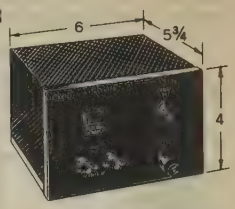
MODEL 1064-W. Delivers low-ripple DC; charges 6/12 V batteries. Heavy-duty silicon rectifiers, L-C filter with iron core choke. Output: 0-8 V at 10 A continuous, 20 A intermittent; 0-16 V at 6 A continuous, 10 A interm. 8½x5¾x7½". 115 VAC. Shpg. wt. 16 lbs.
775X1065. Factory Assembled .. Each 116.85
4-Up ..... Each 99.95



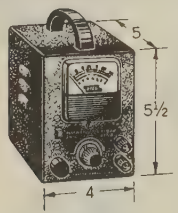
CHARGER/ELIMINATOR

MODEL 1060-W. Electrolytically filtered, low-ripple DC for 6/12 V radios. Output: 0-8 V at 10 A cont., 20 A intermittent; 0-16 V at 6 A cont., 10 A interm. Front voltmeter, ammeter. Rugged steel case, 8¾x 10½x7¾". For 105-125 V, 60 Hz AC. Shpg. wt. 19 lbs.
775X1061. Factory Assembled .. Each 105.16
4-Up ..... Each 89.95

160 WATT INVERTER



MODEL 1075. Ideal for cars, boats, trailers. Provides household current anywhere. Change power delivered by 12 VDC storage battery into 115 V rms AC. Delivers 160 watts. Leads on front panel connect directly to storage battery. Size: 4x6x5¾". Shpg. wt. 6 lbs.
775-1075. Factory Assembled .... Each 61.74
4-Up ..... Each 54.95

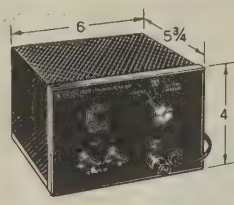


SOLID-STATE 0-3 VDC POWER SUPPLY

- **Ideal for Transistor Equipment**
- **Full Load Ripple, 0.005% Maximum**

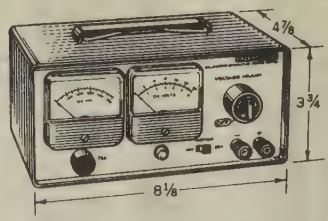
MODEL 1020-W. Features dual-range 0.6 volt and 0-30 front panel voltmeter with positive and negative binding posts. An ideal choice for modern transistorized as well as tube-type equipment. Power output: 0-12 volts at 150 mA; 12-24 volts at 200 mA; 24-30 volts at 300 mA. Has front panel fuse holder; power transformer for line isolation. Steel case, 5x4x5½". 117 VAC. Shpg. wt. 5 lbs.
775-1020. Factory Assembled .. Ea. 64.25 4-Up .. Ea. 54.95

INVERTER/CHARGER



MODEL 1080. Delivers a solid 220 watts of power at 115 VAC when connected to the storage battery of your car, truck, boat, etc. Also operates as a battery charger using the 117 VAC supply from home or boat dock. Install it permanently for use as inverter and charger. Battery charger is rated 5 amps, automatically tapers down to prevent overcharging. Size, 4x6x5¾". 7 lbs.
775-1080. Factory Assembled .. Ea. 76.77 4-Up .. Ea. 69.95

REGULATED DC POWER SUPPLY



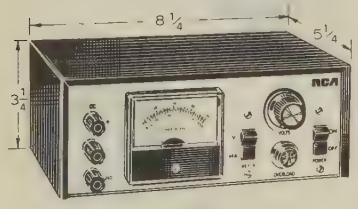
Regulated Low Ripple

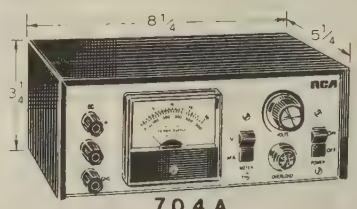
MODEL 1032-W. Regulated against line and load variations. Provides the voltages and currents most commonly needed in the service shop and laboratory. Provides 0-30 volts continuous output with loads from 0 to 500 mA. Regulation, 0.2 volts change from 0 to maximum load and 105-135 volt line. Ripple, less than 2.5 mV p-p. Voltmeter, ammeter. Fused. 4⅞x3¾x8⅛". 105-135 VAC. 5 lbs.
775R1033. Factory Assembled .. Ea. 85.45 4-Up .. Ea. 79.95

VERSATILE DC POWER SUPPLIES

NEW!

- **Continuously Adjustable Voltage Output Down to 0 Volts**
- **Electronic Short-Circuit Protection**
- **Front-Panel Overload-Indicator Lamp**





The **702A**, **703A**, and **704A** are solid-state, constant-voltage DC power supplies. These versatile bench-type units are ideally suited for use in circuit design, servicing, industrial, and educational applications. Overload current is limited to prevent damage to the power supplies. No damage will occur even if the supply is connected to an external short circuit. A special overload indicator panel lamp will glow when the current approaches the maximum rated level. A meter is provided to indicate either output voltage or current level. The meter function is selected by a convenient panel switch. All-silicon transistors and diodes are used in the three supplies. Circuit design features include a negative feedback circuit to maintain constant output voltage with low ripple regardless of varying line voltages. Three convenient output terminals (**+DC**, **−DC**, and **GND**) are provided. The units are equipped with three-wire AC power cords to permit connecting the external circuit to the power line ground, using the "GND" Terminal. **SPECIFICATIONS:** The **WP-702A** has an output of **0 to 20 V**, and **0 to 200 mA**, the input is **105 V-135V**, and **50 to 60 Hz**. Line regulation* of **30 mV**, and Load regulation** less than **50 mV**. Ripple is less than **500 uVrms**. The **WP-703A** has an output of **0 to 20 V** and **0 to 500 mA**, input of **110 V-135**, **50-60 Hz**, Line Regulation of **7mV**, Load Regulation less than **10 mV**, and Ripple less than **200 uVrms**. The **WP-704A** has an output of **0 to 40 V**, **0 to 250 mA**, input of **110 V-135 V**, **50-60 Hz**, Line Regulation* of **15 mV**, Load Regulation** less than **20 mV** and Ripple of less than **500 uVrms**.

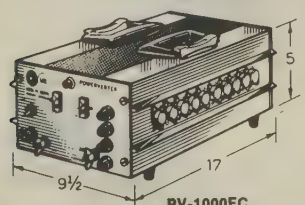
DIMENSIONS:
WP-702A — 6 in. x 12 in. x 3 in. (15.2 cm x 30.5 cm x 7.6 cm); weight, 4 lbs., 13 oz. (2.19 kg).
WP-703A and **WP-704A** — 5¼ in. x 8¼ in. x 3¼ in. (13.3 cm x 21 cm x 8.3 cm); weight, 5 lbs., 13 oz. (2.64 kg).

*(Max. change in output with power-line variation of 110 to 135 V AC)
**(Max. change at rated load)

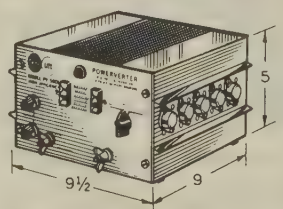
901-5702. Model WP-702A. **1-4 ..... Each 99.00** **5-Up ..... Each 89.10**
901-5703. Model WP-703A. **1-4 ..... Each 90.00** **5-Up ..... Each 81.00**
901-5704. Model WP-704A. **1-4 ..... Each 90.00** **5-Up ..... Each 81.00**

DC-TO-AC POWER INVERTERS

SOLID-STATE UNITS WITH 12-V INPUTS



PV-1000FC



PV-250FC

PV-500FC

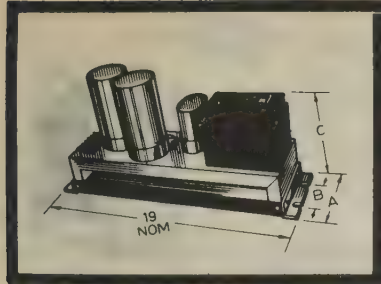
Ideal for powering 117 VAC appliances such as electric razors, lighting, small power tools, tape recorders, radios, television receivers, phonographs, test equipment, ambulance equipment, video tape, etc. from car or portable battery. Invaluable for outdoorsmen, vacationers, farmers, construction workers, trailer owners. Output voltage varies directly with input voltage and is inversely proportional to load. Available in wattage ratings from 350 to 1000 watts. All solid-state for extra reliability. Heavy-duty units are intended for use with large appliances or combinations of small tools and appliances; lighter units are suitable for small radios, shavers, phonographs. All inverters are for 12 volt DC input only. *60 Hz, ±1 Hz, 11-14 VDC input.

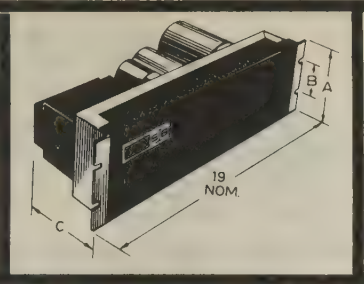
Stock No.	Mfr's. Type	Fig.	DC Input Volts	Max. Watts Cont.	Max. Output Watts (5 Min.)	Input Amps, No Load	Battery Charger	Frequency Control*	Size, In.	Wt., Lbs.	EACH 1-9	EACH 10-Up
575-1065	PV-350	B	12	350	385	4½	No	No	3½x6½x9	10	**94.69**	**84.48**
575-1070	PV-500B	C	12	500	550	4	10 amps	No	5x9½x9	19	**136.77**	**116.25**
575-1000	PV-250FC	B	12	250	275	3½	No	Yes	3½x6½x9	13	**134.46**	**114.29**
575R1010	PV-500FC	C	12	500	550	4½	No	Yes	5x9½x9	19	**246.33**	**209.38**
575-1075	PV-1000FC	A	12	1000	1100	12	No	Yes	5x9½x17	45	**358.22**	**304.49**

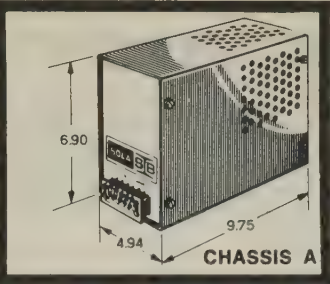
NOTE: do not use with refrigerators, capacitor-start or split phase motors, inductive reactive or capacitive loads.

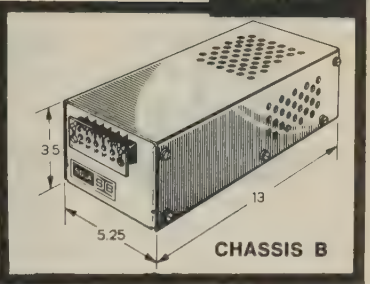
Alec Electron Says – He Who Depends on Allied is a Wise Electronics Buff

Power Supplies and High-Voltage Packs









CVDC POWER SUPPLIES

- **Fixed Output for Pulse, Variable, Intermittent, Fixed Loads**
- **DC Voltage Regulation within ±1% for ±15% Input Voltage Variation**
- **Constant Voltage Transformer Provides Automatic Current Limiting**

Large filter capacitances provide fast response for rapidly changing loads. "Brute force" supplies offer DC voltage regulation to ±1% for ±15% input voltage variation. Constant voltage transformer provides automatic current limiting in event of load faults; short-circuit protection prevents damage from overloads. Utilizes full rating of rectifiers —wave shape minimizes filtering needed. Normal ripple, 1% rms. Negative or positive DC polarity. Typical efficiency, 75%. Electrical circuits insulated from ground for operation at either polarity. For 100-130 VAC, 60 Hz.

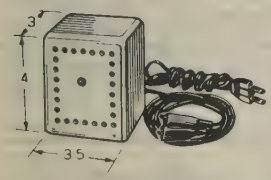
Stock No.	Mfr's Type	Output Ratings V	A	W	Size, In. A	B	C	Wt. Lbs.	EACH 1-4	5-9	10-Up
921Z7850	282126-1	24	10	240	5¼	2¼	8¾	48	222.11	177.69	166.50
921-7875	282128-1	28	15	420	7	4	7¼	55	239.23	191.38	179.00
921U7650	281561-2	48	10	480	5¼	2¼	9¾	48	222.11	177.69	166.50

MINIATURE DC POWER SUPPLY TW/TWD SERIES

Miniature power supplies provide DC power with no deration over all specified conditions. Available in most commonly used output voltage and current ratings. TW series has single output that is adjustable ±2%. TWD series offers a dual supply in a single assembly. Output can be shorted without causing damage to the power supply; prolonged operation with the supply overloaded or shorted is not recommended. Threaded inserts secure units to mounting surface. AC input 105-125 V, single phase, 50-400 Hz. Input isolation 50 ohms. Output voltage ±2%. Output Resis. 0.2 ohms at 10 kHz. Oper. Temp. —25° to +71°C, Stor. Temp. —25° to +85°C.

Stock No.	Mfr's Type	Description	Output Volts	mA	Regulation Line %	Load %	Size Inches W x H x D	EACH 1-9	10-24	25-Up
983-0900	TW5-250	Single Output	5	250	±0.05	±0.1	2x3x1	48.83	41.00	36.50
983-0905	TW10-120	Single	10	120	±0.05	±0.05	1¾ x2¼x1	31.31	26.80	25.10
983-0910	TW24-50	Supplies	24	50	±0.05	±0.05	1¾ x2¼x1	31.31	26.80	25.10
983-0917	TWD15-65	Output	15	65	0.04	0.02	2½ x3½ x⅞	46.40	39.80	37.00

ELIMINATOR 12V DC POWER SUPPLY



TYPE BE12. Eliminates 12-14 volt batteries to power DC devices. Use for servicing all-transistor 12-14 volt equipment and hybrid or all-vacuum tube equipment. Useful for operating auto radios, stereo tape cartridge and cassette players. Designed for protection against inadvertent overloads and dead short circuits. 105-125 volts, single phase, 60 Hz AC. Precision regulated and filtered. DC output: 12-14 volts at 1.5 amps. All-silicon transistors for maximum dependability. Corrosion resistant case. U.L. listed two-wire cord and plug. Output leads complete with alligator clips to DC load. Wt. 1 lb.

- **All Silicon**
- **Specially Protected Against Shorts and Overloads**

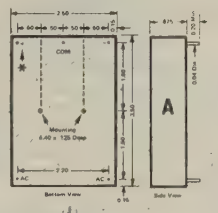
Stock No.	Mfr's Type	Output Volts	EACH 1-9	10-24	25-Up
983-1000	BE12	12-14	48.10	38.48	34.00

MODULAR POWER SUPPLIES

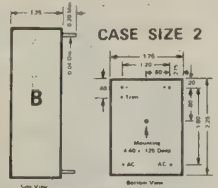
Regulating Action: Holds output voltage to ±1% or less for input variations as great as ±15% of nominal input voltage. Input 100-300 VAC, 60 Hz. **Response:** 25 milliseconds. **Frequency:** variation linear over ±5% change in frequency from 60 cycles, approximately 1.4% voltage increase for 1% frequency increase. **Operating Temperature:** 0° to 50°C. Output voltage will change 1% for 40° change in ambient temp: **Ripple:** Not over 1% rms. **Isolation:** CV transformer isolates AC source and DC load. **Short Circuit Protection:** Automatic current limiting limits current to 250% of rated value and protects power supply and equipment. **Polarity:** Output terminals isolated from ground, allowing positive or negative output to be grounded.

Stock No.	Mfr's Type	DC Output V	A	W	Load Regulation Volts ½L-FL	¼L-FL	Style	Max. Ripple rms	Shpg. Wt.	EACH 1-9	10-49	50-Up
921-4716	28-28-243	28	4.3	120	1.2	2.0	A	.3	14	120.24	96.19	85.00
921-4726	28-12-315	12	15	180	0.6	1.0	B	.4	19	179.10	143.28	126.50
921-4732	28-24-280	24	8	192	0.7	1.2	B	.3	19	179.10	143.28	126.50

CASE SIZE 1



CASE SIZE 2



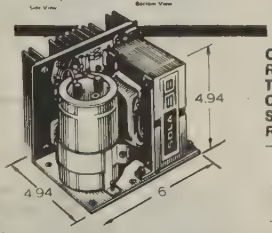
SERIES REGULATED SOLID POWER SUPPLIES

For printed wiring board mounting, point of use regulation. Dependable and rugged, with single output or dual tracking outposts. **Input Voltage:** 115 VAC ±10 VAC (50-400 Hz). **Line Regulation:** ±.20% or 2.5 mv. **Load Regulation:** ±.20% or 2.5 mv. **Output Voltage Accuracy:** ±2%. **Operating Temperature:** —25°C to 71°C.

Stock No.	Mfr's Type	Cond. Output (vdc)	Output Current (ma)	PARD (mv)	Case size	EACH 1-9	10-up
921-6300	84-05-150	5	500	1 RMS	1A	52.94	41.80
921-6310	84-05-210	5	1000	1 RMS	1B	78.16	61.75
921-6320	84-12-110	12	100	0.5 RMS	2	30.05	23.75
921-6330	84-15-110	15	100	0.5 RMS	2	30.05	23.75
921-6340	84-12-2124	±12	240@	0.5 RMS	1B	78.16	61.75
921-6350	84-15-2110	±15	100@	0.5 RMS	1A	57.78	45.60
921-6360	84-15-2120	±15	200@	0.5 RMS	1B	78.16	61.75

OEM SERIES REGULATED POWER SUPPLIES

Choice of two constant voltage supplies. Automatic short circuit protection with automatic return. Use with positive or negative polarity. Remote sensing provision to eliminate effects of lead resistance on DC regulation. For bench or rack use. Convection cooled. Completely serviceable. Shpg. wt. 7 lbs.

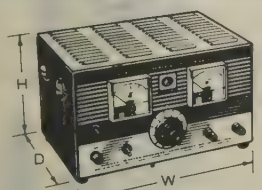


SPECIFICATIONS

Combined Line/Load Regulation ..... ±0.1%
Ripple (rms) ..... 10 mV or .01%
Temperature Coefficient ..... 0.03%/°C
Operating Temperature ..... 0°C to +55°C
Storage Temperature ..... —20° to +85°C
Recovery Time ..... 50 μsec, ½L to FL

Stock No.	Mfr's Type	Output Volts	A	EACH 1-9	10-49	50-Up
921-4850	83-05-260	4.8- 5.5	6	70.98	56.78	53.10
921-4853	83-24-225	23-25	2.5	70.98	56.78	53.10

INDUSTRIAL POWER SUPPLIES



EF, EFB

DC voltage output is continuously variable. Avalanche characteristics on rectifiers. Meters have ±2% accuracy.

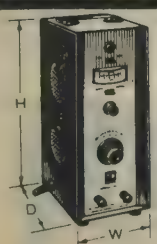
Model EF. Variable output, 0-28 or 0-14 V at 5 amps continuous; 10 amps intermittent. Selenium rectifiers. Input: 117 V, 60 Hz.

Model EFB. Very low ripple version for transistor work; has chokes and capacitors in ripple filter. Federal stock number 6130-957-1450. Input: 117 V, 50-60 Hz AC.

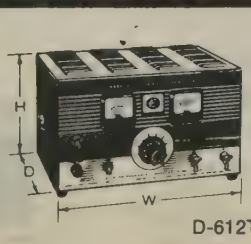
†Voltage change for each amp of output change % applies for either line or load. §No-load to full load unless otherwise specified.

Stock No.	Mfr's Type	Output Volts	Amps	Regulation§ V/A†	Max. Ripple	Meters	DC Imped., Ohms§	Size Inches WxDxH	Wt., Lbs.	EACH 1-4	5-Up
780X2200	EF	0-28	0-6	1.9 (1-5 A)	1.0%	0-50 V; 0-6 A	0.9 (1-5 A)	12x8½x7	25	192.89	154.31
		0-14	0-6	0.6 (1-5 A)	1.0%		0.6 (1-5 A)				
780U2300	EFB	0-32	0-4	1.25	0.1%	0-40/20 V;	1.25	12x8½x7	36	270.00	216.00
		0-16	0-8	1.0	0.1%	0-10 A	1.0				

GENERAL-PURPOSE POWER SUPPLIES



EC-2



D-612T

- **Smooth Action Controls and DC Voltage and Current Meters Permit Adjustment to Exacting Requirements**
- **Patented Conduction Cooling**
- **Special Filters Improve Regulation**
- **All Output Ratings Conservative**

Model D-612T. For CB transceivers, battery charging, solenoids, etc., requiring up to 16 VDC. Low ripple. Maximum output for the price. Voltage and current output meters. Input: 117 V, 60 Hz.

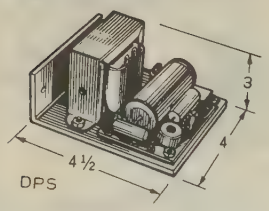
Model EC-2. Low cost unit for auto, tape, disk and transistor radio servicing, research and development. Continuously variable output; low ripple. Combined voltmeter/ammeter. 117 V, 60 Hz.

Stock No.	Mfr's Type	Output Volts*	Amps	Regulation§ V/A†	Max. Ripple	Meters	DC Imped., Ohms§	Size, Inches WxDxH	Wt. Lbs.	EACH 1-4	5-Up
780X1000	D-612T	0-16	0-10	0.44 (3-10 A)	0.5% at 5A,	0-20 V; 0-10 A	0.44 (3-10 A)	12x8½x7	22	139.60	111.64
		0-8	0-10	0.3 (3-10 A)	2% at 10 A		0.3 (3-10 A)				
780-2100	EC-2	0-16	0-5	1.8	0.5%	0-20 V/10A	1.8	4¾x6½x10¾	11	108.00	86.40

*Continuously variable unless otherwise noted. †Votage change for each amp output change. §No-load to full-load unless noted.

Regulated DC Power Supplies

DPS SERIES REGULATED 20-WATT DC POWER SUPPLY



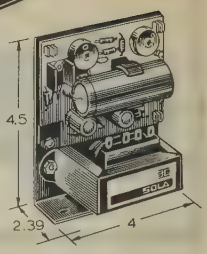
AC input, 115 volts ±10%, single phase, 57 to 63 Hz. All silicon, solid-state construction and long-life reliability. Regulation, ±1% each for line and load; filtered to 0.3% rms ripple, overload protected by automatic recovery foldback current limiting. Automatic short circuit protection. Size: 4½ x 4 x 2½". Av. shpg. wt. 2 lbs.

Stock No.	Mfr's Type	DC Output		EACH		
		Volts	Amp	1-9	10-24	25-Up
983-3204	DPS-4	200	.1	53.02	42.42	38.00

CLASS 81 REGULATED 15-WATT DC POWER SUPPLIES

NEW!

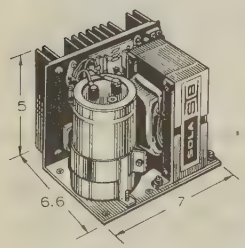
A low-cost, convection cooled power supply that offers complete serviceability. Automatic short circuit protected. Input voltage, 105-125 VAC or 210-250 VAC. Input frequency range, 47-420 Hz, derate load to 75% for 400 Hz operation. Regulation, ±0.2% for line and load combined. Operating temp. 0°C to +50°C without derating. For positive or negative polarity. Recovery time, less than 50 μsec,½L to FL. Output voltage adjustment, ±12%. 3 lbs.



Stock No.	Mfr's Type	DC Output		EACH		
		Volts	Amp	1-9	10-24	25-Up
921R6400	81-05-230-1	5-6	3-2.5	30.75	24.25	22.95
921R6410	81-12-215-1	12-15	1.5-1.2	30.75	24.25	22.95
921R6420	81-24-180-1	24	.8	30.75	24.25	22.95

OEM SERIES REGULATED 60-WATT DC POWER SUPPLIES

NEW!

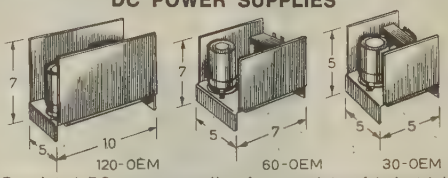


- Short Circuit Protected
- Automatic Current Limiting

For computers, data-processing, process control, electronic measuring and more. Designed for rack or bench use. Completely protected short circuit proof; automatic current limiting. Convection cooled. Complete serviceability. Remote sensing. Input range, 108-132 or 216-264V, 50-400 Hz. Regulation, 0.05% line or load. Operating temperature, 0°C to 55°C. May be used for positive or negative polarity. Recovery time, less than 50 μsec, ½L to FL. Temperature coefficient, 0.03%°C. Storage temperature, −20°C to +85°C. Ripple, 10mV RMS. Av. shpg. wt. 7 lbs.

Stock No.	Mfr's Type	DC Output		EACH		
		Volts	Amp	1-9	10-24	25-Up
921-4850	83-05-260	4.8- 5.5	6	70.98	56.78	53.10
921-6510	83-12-250	11.5-12.5	5	70.98	56.78	53.10
921-4853	83-24-225	23-25	2.5	70.98	56.78	53.10

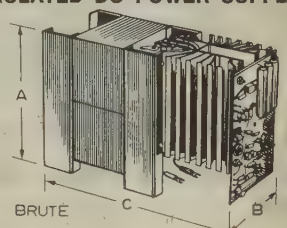
II OEM SERIES — ECONOMY REGULATED DC POWER SUPPLIES



Regulated DC power supplies for a variety of industrial and commercial applications. Voltage potentiometer facilitates wide range of adjustment. Ten models to choose from with voltages from 3.6 to 60 VDC. AC input, 115 V ±10%, single phase, 57 to 63 Hz. Line and load regulation, each ±1%, low ripple output of 0.1% plus 10 mV rms. Automatic short circuit protection. Floating output permits positive or negative grounding. Transformer taps provided. Open chassis construction for use in original manufacturer's (OEM) equipment. **Type 30-OEM** (30 W): 5x5x5". Shpg. wt. 5 lbs. **Type 60-OEM** (60 W): 7x7x7". Shpg. wt. 7 lbs. **Type 120-OEM** (120 W): 10x5x7". Shpg. wt. 12 lbs.

Stock No.	Mfr's Type	Volt Range V	EACH		
			1-9	10-24	25-Up
983-5500	30-OEM-1	3.6-9	76.40	61.12	55.00
983-5501	30-OEM-2	9-17	76.40	61.12	55.00
983-5502	30-OEM-3	17-30	76.40	61.12	55.00
983-5503	30-OEM-4	30-60	76.40	61.12	55.00
983-6000	60-OEM-1	3.6-9	86.84	69.47	62.00
983-6001	60-OEM-2	9-17	86.84	69.47	62.00
983-6002	60-OEM-3	17-30	86.84	69.47	62.00
983-6003	60-OEM-4	30-60	100.20	80.16	72.00
983-7001	120-OEM-2	9-17	141.95	113.56	102.00
983-7002	120-OEM-3	17-30	141.95	113.56	102.00

BRUTE SERIES HIGH POWER REGULATED DC POWER SUPPLIES



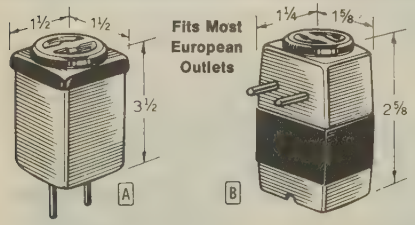
- Circuit Virtually Eliminates RFI
- Efficiency is Greater Than 75%
- Remote Sensing Ability
- Continuously Variable Output

Employs phase control principle. AC input 105/130 or 210/260 V. single phase, 47 to 63 Hz. Line regulation, ±0.1% or 50 mV.; load regulation, ±0.1% or 50 mV. Constant current or constant voltage with automatic crossover. Ripple 1% or 500 mV rms maximum. Output continuously adjustable from 5 to 50 V or 2 to 25 V (reconnectable). Overload protection is by adjustable current limiting. Optional OVP-1 overvoltage protection device. Brute I (300 W): 7¾x7x11". Wt. 20 lbs. Brute II (600 W): 7¾x7x12". Wt. 30 lbs. Brute III (1200 W): 11¼x10x14". Wt. 50 lbs.

Stock No.	Mfr's Type	Output Amps	EACH		
			1-9	10-24	25-Up
983-1101	Brute I	6/12	268.87	215.10	194.00
983-1102	Brute II	12/24	332.33	265.86	239.00
983-1103	Brute III	25/50	597.86	478.29	429.00

FOREIGN TRAVEL ADAPTERS

Convert 220/240 Volts to 120 VAC 50/60 Hz



CONVERTER-ADAPTER

Allows use of 120 VAC irons, broilers, heating pads, etc. from 220/240 volts. Rated at 1000 watts. Built-in thermostat automatically prevents overheating and overloading. 3½x1½x1½". 3 oz.
910-5255. Type 273-1402.....Each 11.95

STEP-DOWN TRANSFORMER

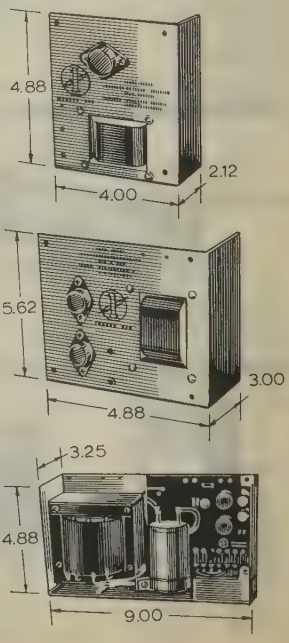
For completely safe operation of 120 VAC electric razors, radios, calculators, etc., from 220/240 VAC. Also great for battery rechargers. Rated at 40 watts. Thermally protected. 1⅝x2⅝x1¼". 9½ oz.
910-5250. Type 273-1401.....Each 11.95

REGULATED DC POWER SUPPLIES

NEW!

- Low Cost
- Rugged Aluminum Chassis Construction
- IC Regulated
- Remote Sensing with Open Lead Protection
- 0.2% Load Regulation
- Two Year Warranty
- Vibration and Shock Per MIL-STD-810B

DC power supplies offer rugged construction, IC regulation at low cost. All units have remote sensing with open lead protection. Reverse voltage protection of output and pass element. Open frame, rugged aluminum chassis construction. Convection cooled; units must be derated or fan cooled when mounted in confined space. *Indicates models having overload and short circuit protection by current limit/foldback, instantaneous recovery and automatic reset. Line regulation, ±.01%; load regulation, ±.02%. Input, 105-125 VAC, 47-440 Hz. Output ripple, 1.5 mV Pk-Pk. 400 μV RMS. Transient response, 30 μSec. for 50% load change. Temperature coefficient, .002%/°C typical, .01%/°C maximum. Temperature rating, 0 to 50°C, derated linearly to 40% at 71°C. Efficiency, 5-6 V outputs, 50% at full load, 115 VAC; 12-24 V outputs, 65% at full load, 115 VAC. Tracking accuracy, +15 V output tracks the −15 V output within 0.1% when balance is preset to .01%. Available in output voltages from 5-24 VDC, 1.2 to 12.0 amps.



Stock No.	Mfr's Type	DC Output Volts	DC Output Amps	Fig.	EACH 1-9	EACH 10-24	EACH 25-Up
965-0050	HB5-3*	5	3.0	A	39.00	31.20	28.10
		6	3.0	A			
965-0100	HB15-1.5	12	1.7	A	32.00	25.60	23.05
		15	1.5	A			
965-0150	HB24-1.2	18	1.3	A	32.00	25.60	23.05
		20	1.3	A			
		24	1.2	A			
965-0200	HC5-6*	5	6.0	B	66.00	52.80	47.52
		6	6.0	B			
965-0250	D5-12*	5	12.0	C	110.00	93.50	84.15
		6	12.0	C			

Specify Stock No., Mfr's Type and Values Wanted With Your Order

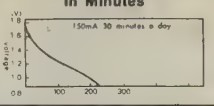
Batteries, Flashlights, and Clips

ALLIED'S OWN "NEW FORMULA" BATTERIES

Stock No.	Type No.	Size	Replaces Eveready	Replaces Burgess	Replaces RCA	Lots of 10	Per Box
910-5114	23B466	1.5V "D"	950	2	V5036	2.10	Box 24/4.54
910-5129	23B468	1.5V "AA"	915	Z	VS034A	1.50	Box 72/9.72
910-5116	23B467	1.5V "C"	935	1	VS035A	2.10	Box 24/4.54
910-5112	23B464	9V Rect.	216	2U6	VS323	4.90	Box 24/10.58

Allied's own premium-quality "New Formula" power cells give you superior performance at substantial savings. Factory sealed for protection in handling against corrosive leakage. Available in sizes to fit all popular flashlights and other battery-powered appliances. "Buy 'em by the box" and save even more.

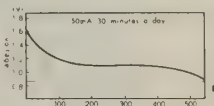
Average Life Curve in Minutes



NOVA CELL "TRIPLE LIFE" BATTERIES

Stock No.	Type No.	Size	Volts	Pack 2	Pack 4
910-5105	23-451	"D" Cell	1½	1.00	—
910-5106	23-452	"C" Cell	1½	1.00	—
910-5107	23-453	"AA" Cell	1½	—	1.19

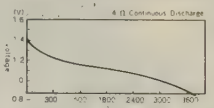
Made with a miracle polyethylene seal that prevents leakage. Specially processed electrolyte delivers triple the life of ordinary batteries. Available in three popular sizes, in packages of two or four batteries as shown below.



ENERCELL SUPER-VALUE LONG-LIFE ALKALINE BATTERIES

Stock No.	Type No.	Size	Volts	Replacement for Burgess	Replacement for Eveready	Replacement for Mallory	PRICE
910-5171	23-550	"D"	1½	AL-2	E95	MN1300	Pkg. 2/1.79
910-5172	23-551	"C"	1½	AL-1	E93	MN1400	Pkg. 2/1.49
910-5173	23-552	"AA"	1½	AL-9	E91	MN1500	Pkg. 4/2.09
910-5174	23-553	Rect.	9	...	...	MN1604	Ea. 1.39

Extra service and long life. Designed for high drain service applications—outperform, outlast standard operating zinc-carbon flashlight batteries by up to 1000%. Alkaline cells cost less, too. Compare by dividing the initial cost by the many extra hours of service provided. 10 oz. pack.



ZINC CARBON BATTERIES FOR TRANSISTOR CIRCUITS

Stock No.	NEDA No.	Mfr's Type	Voltage	Size in.	Standard Quantity	STANDARD QUANTITY 1-9	10-24	25-Up
737-0780	1604D	2MN6	9.0	1x$^{35}/_{64}$x1⅞ dia.	Each	1.28	1.09	.73
737R0790	1602	2N6	9.0	1⅜x1¾x2¼	Each	3.50	2.80	1.92
737-0950	15	930	1.5	1$^{31}/_{32}$x$^{35}/_{64}$ dia.	PK/4	1.63	1.40	.89
737-0040	9	C6X	9.0	2$^{5}/_{16}$x1$^{1}/_{32}$x6$^{1}/_{16}$	Each	6.50	5.20	3.43
737-0480	1605	B266/M6	9.0	1$^{13}/_{16}$x1$^{13}/_{16}$x2$^{7}/_{16}$	Each	3.13	2.50	1.68
737-0500	910	310/NE	1.5	1$^{11}/_{64}$x$^{7}/_{16}$ dia.	Each	.25	.20	.13
737-0510	1600	P6	9.0	1$^{15}/_{16}$x1 dia.	Each	1.88	1.50	1.01

ZINC CARBON "A" BATTERIES FOR ELECTRONIC USE

Stock No.	NEDA No.	Mfr's Type	Voltage	Size in.	Standard Quantity	1-9	10-24	25-Up
737-0760	11	2F	1.5	2$^{15}/_{32}$x1$^{3}/_{8}$x1¼	Each	3.25	2.60	1.78
737-0770	700	2FH/2FBP	1.5	2⅝x1$^{11}/_{32}$x4⅛	Each	2.88	2.30	1.58
737R0810	4	4F	1.5	2⅝x2⅝x4$^{3}/_{32}$	Each	3.88	3.10	2.12
737-0910	706	532	4.5	2$^{15}/_{32}$x1$^{3}/_{8}$x2$^{23}/_{32}$	Each	3.50	2.70	1.88
737-0400	701	F2BP	3.0	2$^{21}/_{32}$x1$^{3}/_{8}$x4$^{1}/_{32}$	Each	5.13	4.05	2.81
737-0420	6	F4PI	6.0	2$^{21}/_{32}$x2$^{21}/_{32}$x4¼	Each	3.50	2.80	1.92

ZINC CARBON "B" BATTERIES FOR ELECTRONIC USE

Stock No.	NEDA No.	Mfr's Type	Voltage	Size in.	Standard Quantity	1-9	10-24	25-Up
737R0970	710	4158	22½	3$^{17}/_{32}$x2¼x2$^{29}/_{32}$	Each	4.88	3.90	2.67
737-0980	708	5156SC	22½	4$^{7}/_{64}$x2$^{3}/_{64}$x2$^{55}/_{64}$	Each	12.10	10.10	8.29
737-0990	709	5308	45	4$^{1}/_{16}$x2$^{1}/_{16}$x5⅛	Each	10.38	8.30	5.68
737R0430	224	K10	15	1¼x$^{7}/_{64}$x1$^{1}/_{32}$	Each	4.63	3.70	2.53
737-0440	226	K15	22½	1¼x$^{7}/_{64}$x2$^{3}/_{32}$	Each	5.38	4.30	2.95
737-0490	202	M30	45	3$^{9}/_{16}$x1¾x5½	Each	8.25	6.60	4.52
737R0580	208	U10	15	1x$^{3}/_{64}$x1$^{7}/_{16}$	Each	2.13	1.70	1.60
737-0590	215	U15	22½	1x$^{3}/_{64}$x1$^{3}/_{32}$	Each	2.75	2.20	1.51
737R0600	210	U20	30	1x$^{3}/_{64}$x2$^{1}/_{32}$	Each	2.63	2.10	1.44
737R0610	213	U30	45	1$^{3}/_{32}$x$^{19}/_{32}$x3$^{17}/_{32}$	Each	3.75	3.00	2.05
737R0620	217	UX45	67½	1$^{7}/_{32}$x3$^{1}/_{32}$x3$^{21}/_{32}$	Each	7.15	5.70	3.85
737R0640	204	V60	90	3$^{23}/_{32}$x1$^{9}/_{32}$x3$^{11}/_{16}$	Each	7.63	6.10	4.18
737R0660	.....	XX15	22½	1$^{11}/_{32}$x$^{15}/_{32}$x3⅞	Each	9.00	7.20	4.93
737R0670	200	XX45	67½	2¾x1$^{11}/_{32}$x3$^{43}/_{64}$	Each	5.38	4.30	2.95
737-0690	220	Y10	15	1$^{9}/_{32}$x$^{19}/_{32}$x1$^{23}/_{64}$	Each	2.38	1.90	1.30
737-0700	221	Y15	22½	$^{19}/_{32}$x$^{19}/_{32}$x1$^{31}/_{32}$	Each	2.75	2.20	1.51
737-0740	711	Z30NX	45	3$^{1}/_{32}$x1$^{7}/_{8}$x4$^{13}/_{32}$	Each	9.88	7.90	5.40

ZINC CARBON "C" BATTERIES FOR ELECTRONIC USE

Stock No.	NEDA No.	Mfr's Type	Voltage	Size in.	Standard Quantity	1-9	10-24	25-Up
737R2001	713	5540	7½	4x$^{7}/_{8}$x2¾	Each	5.88	4.70	3.22
737-2005	908	F4M	6	2⅝x2⅝x4⅛	Each	2.73	2.18	1.45

LANTERN BATTERIES

Stock No.	NEDA No.	Mfr's Type	Voltage	Size in.	Standard Quantity	1-9	10-24	25-Up
737-2006	.....	F4BP	6	2⅝x2$^{7}/_{8}$x4	Each	2.85	2.28	1.52
737-2007	918	TW1	6	5$^{3}/_{8}$x2$^{7}/_{8}$x4$^{15}/_{16}$	Each	5.88	4.70	3.14
737-2008	926	TW2	12	5$^{3}/_{8}$x2$^{7}/_{8}$x4$^{15}/_{16}$	Each	7.25	5.80	3.86

INDUSTRIAL BATTERIES

Long-life service on heavy-duty drain and long periods of use. Labeled "Not Designed for Retail Sales." Excellent for emergency use.

Stock No.	NEDA No.	Mfr's Type	Voltage	Wt. Lbs.	EACH 1-9	10-24	25-Up
737-0812	900E	4FH	1.5	1¼	3.08	2.45	1.63
737-0814	903	4F5H	7.5	7	12.88	10.30	6.86
737-0821	905	6 Ign	1.5	2	3.23	2.58	1.72
737-0822	906	6 Tel	1.5	2	3.23	2.58	1.72

ALKALINE BATTERIES

*Capacity in milliampere-hours.

Stock No.	Mfr's Types	Mfr's Types	Volts	Cap'y mAH*	Size	Dia. x Ht.	EACH 1-9	10-24	25-Up
853-0303	MN2400	AL7	1.5	750	AAA	$^{13}/_{32}$x1¾	.90	.72	.47
853-0304	MN9100	ALN	1.5	560	N	$^{29}/_{64}$x1⅛	.90	.72	.47

RECHARGEABLE NICKEL-CADMIUM CYLINDRICAL CELL BATTERIES

(* 10-hr. Discharge Date in mA)

Stock No.	Mfr's Type	Volts	Size (Inches)	Wt. (Oz.)	*	Replaces Size	EACH 1-9	10-24	25-Up
737-0130	CD6 (AA)	1.25	$^{9}/_{16}$Dx1$^{1}/_{64}$	2	45	N	4.63	3.70	2.53
737-0140	CD6L (AA)	1.25	$^{9}/_{16}$Dx2$^{9}/_{32}$	2	45	N	4.98	3.98	2.77
737-0200	CD10 (D)	1.25	1$^{19}/_{64}$Dx2$^{27}/_{64}$	2	400	N	12.65	10.57	8.44
737-0210	CD10L (D)	1.25	1$^{39}/_{64}$Dx2$^{49}/_{64}$	2	400	N	12.98	10.84	8.67
737-0230	CD12 (short C)	1.25	⅝Dx1$^{33}/_{64}$	2	120	N	6.90	5.50	3.67
737-0250	CD14 (C)	1.25	1$^{1}/_{64}$Dx$^{8}/_{64}$	4	190	...	9.73	7.78	5.19
737-0270	CD22	6.1	1$^{1}/_{16}$Dx1$^{31}/_{32}$	12	22	Y5201	17.66	14.06	11.77
737-0280	CD24	9.7	1$^{1}/_{16}$Dx2$^{1}/_{32}$	12	15	Y5488	26.16	21.84	17.44
737-0330	CD28	12.2	1$^{1}/_{16}$Dx3$^{19}/_{32}$	12	22	Y5386	33.00	27.56	22.00
737-0340	CD29	12.2	1$^{51}/_{64}$Dx3$^{7}/_{64}$	20	45	Y5511	45.09	41.04	36.00

MERCURY BATTERIES Allied will supply name brand—whatever in stock.

†With snap terminals. *Capacity in milliampere-hours.

Stock No.	Mfr's Types	Mfr's Types	Volts	Cap'y mAH*	Dia. x Ht. or H.W.D.	EACH 1-9	10-24	25-Up
853-0001	RM1	HG1	1.40	1000	$^{5}/_{8}$x2$^{1}/_{32}$	1.75	1.40	.91
853-0002	RM1R	HG1R	1.35	1000	$^{5}/_{8}$x2$^{1}/_{32}$	1.90	1.52	.99
853-0003	RM1RT2	HG1RT2	1.35	1000	$^{5}/_{8}$x2$^{1}/_{32}$	2.40	1.72	1.19
853R0004	RM3R	HG3R	1.35	2200	1x2$^{1}/_{32}$	2.95	2.36	1.53
853-0005	RM4R	HG4R	1.35	3400	1$^{1}/_{5}$x2$^{1}/_{32}$	3.78	3.02	1.96
853-0007	RM12	HG12	1.40	3600	$^{5}/_{8}$x1$^{61}/_{64}$	3.00	2.40	1.56
853-0008	RM12R	HG12R	1.35	3600	⅝x2	3.23	2.60	1.68
853-0010	RM12RT2	HG12RT2	1.35	3600	$^{5}/_{8}$x1$^{61}/_{64}$	3.73	2.80	1.88
853-0012	RM42R	HG42R	1.35	14000	1$^{1}/_{5}$x2⅜	9.13	7.30	4.75
853-0013	RM42RT2	HG42RT2	1.35	14000	1$^{1}/_{5}$x2⅜	9.63	7.50	4.95
853-0017	RM401	HG401	1.40	800	$^{29}/_{64}$x1½	1.75	1.30	.88
853-0020	RM502R	HG502H	1.35	2400	½" dia. x 1$^{3}/_{32}$	2.93	2.35	1.52
853-0023	RM601R	HG601R	1.35	1800	$^{5}/_{8}$x1$^{5}/_{32}$	3.43	2.55	1.72
853-0024	RM625	HG625	1.40	350	$^{5}/_{8}$x¼	1.63	1.30	.85
853-0025	RM625R	HG625R	1.35	250	$^{5}/_{8}$x¼	1.83	1.45	.95
853-0027	RM640	HG640	1.40	500	$^{5}/_{8}$x$^{7}/_{16}$	1.63	1.30	.85
853-0030	RM675	HG675	1.40	160	$^{29}/_{64}$x$^{13}/_{64}$	.88	.70	.46
853-0034	TR115R	H115R	6.75	250	2$^{1}/_{32}$x1$^{5}/_{8}$	6.15	4.90	3.20
853-0035	TR126	H126	8.40	600	¾x2	4.25	3.40	2.21
853-0036	TR132	H132	2.80	1000	2$^{1}/_{32}$x1$^{7}/_{8}$	3.50	2.80	1.82
853-0037	TR132R	H132N	2.70	1000	2$^{7}/_{32}$x1$^{7}/_{16}$	3.63	2.90	1.89
853-0038	TR133	H133	4.20	1000	2$^{1}/_{32}$x2	4.38	3.50	2.28
853-0039	TR133R	H133R	4.05	1000	2$^{1}/_{32}$x2	4.63	3.70	2.41
853R0040	TR134R	H134R	5.40	1000	2$^{1}/_{32}$x2$^{9}/_{64}$	5.60	4.50	2.91
853-0041	TR135R	H135R	6.75	1000	2$^{1}/_{32}$x3¼	6.60	5.30	3.43
853-0043	TR136R	H136R	8.10	1000	2$^{1}/_{32}$x3$^{23}/_{32}$	7.48	6.00	3.89
853-0044	TR137R	H137R	9.45	1000	2$^{1}/_{32}$x4$^{3}/_{8}$	8.30	6.65	4.32
853-0045	TR146X†	H146X	8.40	900	1$^{29}/_{32}$x1$^{1}/_{32}$x2$^{1}/_{32}$	3.13	2.50	1.63
853-0048	TR164	H164	5.60	500	2$^{1}/_{32}$x1¾	4.25	3.40	2.21
853-0049	TR164R	H164R	5.40	500	2$^{1}/_{32}$x1¾	6.40	5.12	3.33
853-0050	TR165	H165	7.00	500	2$^{1}/_{32}$x2¾	5.38	4.30	2.80
853-0051	TR169	H169	12.6	500	2$^{1}/_{32}$x3⅞	9.13	7.30	4.75
853-0052	TR175	H175	7.00	350	3$^{1}/_{64}$x1$^{1}/_{32}$	3.73	2.98	1.94
853-0053	TR177†	H177	9.80	160	3$^{9}/_{64}$x1$^{29}/_{32}$	3.75	3.00	1.95
853-0054	TR233R	.....	4.05	2200	1$^{1}/_{16}$x1$^{3}/_{32}$	8.05	6.45	4.19
853-0055	TR286†	P6	8.40	750	1$^{15}/_{16}$x$^{13}/_{16}$	4.25	3.40	2.21
853-0056	TR289†	PM8	12.6	750	1x2$^{23}/_{64}$	8.38	6.70	4.36
853-0057	ZM9	HG9	1.40	2400	$^{9}/_{16}$x1$^{3}/_{32}$	1.88	1.50	.98
853-0063	303314	HG303314	16.8	2400	1$^{7}/_{32}$x$^{8}/_{64}$	19.35	16.17	12.58

RECHARGEABLE ALKALINE BATTERIES

MODELS SA15AA, SA14C, SA13D BATTERIES. For high-drain service applications. All directly interchangeable with carbon-zinc and alkaline primary AA, C and D cells. Excellent charge retention up to 50 recharges. 1½ volts. **Package of 2.**

Stock No.	Mfr's Type	Size	Wt. Oz.	PKG./2 1-9	10-24	25-Up
853R3703	SA15AA	AA	1	3.28	2.62	1.70
853R3702	SA14C	C	2½	5.00	4.00	2.60
853R3701	SA13D	D	5	5.63	4.50	2.93

9-VOLT BATTERY CLIPS

½" spacing. Fits transistor radio and battery holder connectors. Long life and increased resistance to battery acid and other physical extremes.
910-5205. Type 270-325.....**Set of 5, .99**

INDUSTRIAL "MAGNET" FLASHLIGHT

No. 263

NO. 263. Powerful "Alnico" magnet with 15-lb. grip. Deeply recessed lens. Comes with lamp PR2. Uses two No. 2 (size "D") battery cells (not included).
737-0850. Shpg. wt. 8 oz. .....**Each 3.63**

INDUSTRIAL TWO-CELL FLASHLIGHT

No. 363

NO. 363. Features steel-reinforced reflector. Features flexible vinyl head, ring hanger, deeply recessed lens. Replaceable switch. Uses two No. 2 (Size "D") battery cells (not incl.), PR-2 lamp.
737-0860. Shpg. wt. 8 oz. .....**Each 2.90**

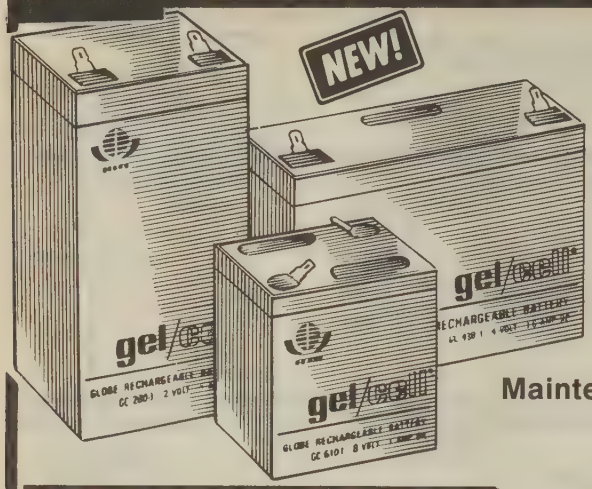
INDUSTRIAL FLASHLIGHT WITH SPARE BULB

No. 368

NO. 368. "Bullet" end-cap contains spare bulb. Also has ring hanger, deeply recessed lens. Uses lamp No. PR2 (incl.) and two No. 2 (size "DD") cells (not incl.).
737-0870. Shpg. wt. 8 oz. .....**Each 3.38**

Alec Electron says — Light Up with Allied's Quality Batteries

Rechargeable Batteries and Chargers

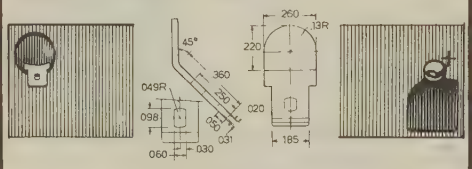


gel/cell®

RECHARGEABLE BATTERIES

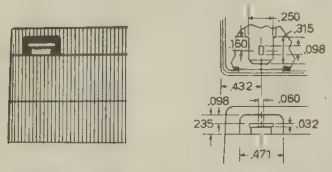
Battery Breakthrough! Compact and Lightweight with Exclusive Gelled Electrolyte That's Sealed, Safe, Maintenance-Free and Takes 500 or More Charge/Discharge Cycles! Ideal for Portable TV, Recorders, VOMs and Burglar/Fire Alarm Systems, More!

TERMINALS: The three styles are shown below. Terminal style is indicated by the last digit in the battery type no.



"1" Quick-Disconnect or Solder Lug. Standard. Used on all but GC210-3B, GC626-2B, GC12200B. Mates with AMP, INC, FASTON "187" Series (for .032" tab) receptacle or equivalent.

"2" Flat Contact. Used on GC626-2B. Mates with spring-loaded contacts.



GC12200 Quick-Disconnect Terminal. Standard terminal on GC12200. Mates with AMP, INC, FASTON "250" Series receptacle or equivalent.

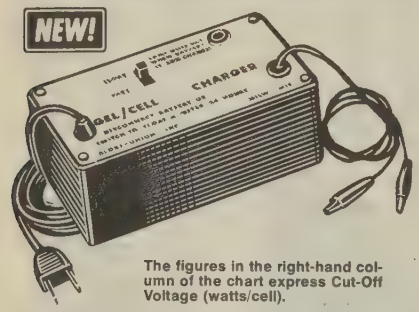
• No Liquids — Drier Than Dry Cells • 1000 or More Cycles Possible • Long Lasting • No Maintenance of Any Kind • Usable in Any Position • Long Shelf Life — Without First Being Charged • No Permanent Cell Reversal • Usable from −76°F to +140°F • High Discharge Rate Capability — Up to 80 Amps Continuous • Series or Parallel Operation • No Shipping Precautions • Competitively Priced

The very best in reliable, rechargeable, no-maintenance batteries. They outperform and outvalue other systems when used as the power source in almost any portable application. Absolutely safe because a "one-way" relief valve releases any pressure that may build up, then automatically reseals. High-impact polystyrene cases eliminate shorts, rust, fungus or other organic growth. And there's no "memory" problem — Gel/Cel delivers full rated power WHEN YOU NEED IT regardless of previous use history.

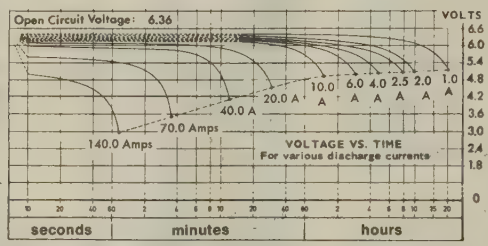
Stock No.	Mfr's Type	Nom. Volts	Amp Hour Rating*	20 Hour Discharge Rate mA	Max. Amps	Int. Res. (Milli-ohms)	Dimensions (Inches)** L	W	H	Wt., Lbs.	Watt-Hours/ Lb.	Watt-Hours/ Cu. In.	EACH 1-9	10-99	100-499	500-Up
621-0100	GC210-3B	2	.9	45	40	30	1.65	.72	2.00	.19	10.9	.76	†	5.93	5.29	4.74
621-0120	GC280-1B	2	7.5	375	80	6	2.06	1.97	3.97	1.1	14.9	1.1	†	7.33	6.55	5.86
621-0140	GC410-4B	4	.9	45	40	60	1.65	1.36	2.00	.37	10.9	.89	†	7.16	6.40	5.78
621-0160	GC426-1B	4	2.6	130	60	47	3.54	1.34	2.63	.86	12.1	.92	†	8.53	7.62	6.82
621-0180	GC610-1B	6	.9	45	40	90	2.00	1.65	2.24	.55	10.9	.9	†	7.96	7.11	6.42
621-0200	GC620-1B	6	1.8	90	80	50	2.95	2.00	2.36	.97	12.4	.94	12.92	11.61	10.37	9.29
621-0220	GC626-1B	6	2.6	130	60	70	5.28	1.31	2.63	1.34	12.1	.92	11.52	10.29	9.21	8.25
621-0240	GC626-2B	6	2.6	130	60	70	5.28	1.31	2.63	1.34	12.1	.92	11.52	10.29	9.21	8.25
621-0260	GC645-1B	6	4.5	225	80	30	5.95	1.34	4.01	2.3	11.3	.93	14.94	13.35	11.99	10.72
621-0280	GC660-1B	6	6.0	300	80	25	4.55	1.97	3.81	2.6	14.0	1.1	15.91	14.29	12.77	11.43
621-0300	GC680-1B	6	7.5	375	80	20	5.96	1.97	3.97	3.3	14.5	1.1	16.98	15.25	13.62	12.20
621-0320	GC826-1B	8	2.6	130	60	70	7.00	1.31	2.63	1.75	12.0	.93	15.44	13.87	12.39	11.10
621-0340	GC1215-1B	12	1.5	75	35	150	7.02	1.33	2.58	1.5	12.0	.81	19.88	17.87	15.96	14.29
621-0360	GC1245-1B	12	4.5	225	80	60	5.95	2.56	4.01	4.5	12.0	.96	21.67	19.45	17.37	15.55
621-0400	GC12200B	12	20.0	1 A	100	18	6.92	6.56	4.95	16.7	14.3	1.1	64.04	47.55	43.72	41.80
621-0380	GC6200B	6	20.0	1 A	200	9	7.00	3.42	5.25	8.5	14.1	1.2	29.68	26.58	23.75	21.46

*CAPACITY RATING. **INCLUDES TERMINAL HEIGHT. †MIN. ORDER QTY. OF 10.

gel/cell BATTERY CHARGERS



The figures in the right-hand column of the chart express Cut-Off Voltage (watts/cell).



Will fully recharge Gel-Cell batteries in 16 hours or less in "fast" mode, 24 to 36 hours in "float" mode. State of charge can be estimated by brilliance of indicating lamp which extinguishes when battery is about 90% charged (60% on float setting). Protected from shorts and polarity reversal. 2¾x5⅞x 3⅛". Shpg. wt. 2 lbs.

Complete With Set of Leads

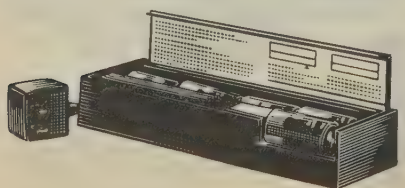
Stock No.	Mfr's Type	mA Out	Use With Battery
621-0600	GRC6350M	350	610, 620, 626, 645, 660, 680
621-0650	GRC12350M	350	1215, 1245, 12200
621-0675	GRC12750M	750	1215, 1245, 12200
621-0700	GRC122000CDM	1800	1215, 1245, 12200
621-0625	GRC8350M	750	826

Battery Part No.	Rating	20 Hour Rate (J_{20})	Selected Discharge Currents (in Amps) Expressed as Multiples of the 20 Hour Rate (J_{20}) 2 x J_{20}	4 x J_{20}	10 x J_{20}	20 x J_{20}	40 x J_{20}	70 x J_{20}	140 x J_{20}	300 x J_{20}
GC-610, GC-410 GC-210	.9 A.H.	.045 Amp	.090	.180	.450	.900	1.80	3.15	6.30	13.50
GC-620	1.8 A.H.	.090 Amp	.180	.360	.900	1.80	3.60	6.30	12.60	27.00

PRICE CHART

Stock No.	1-4, EA.	5-9, EA.	10-Up, EA.
621-0600	32.81	27.50	22.90
621-0650	32.81	27.50	22.90
621-0675	36.74	30.80	25.65
621-0700	52.35	43.90	36.60
621-0625	32.81	27.50	22.90

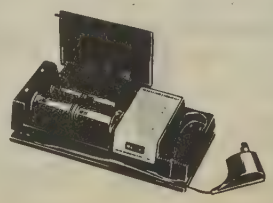
SELF-REGULATING DELUXE BATTERY CHARGER



Recharges every popular size of battery including rechargeable alkaline, carbon-zinc or nickel-cadmium types. Charges up to four batteries simultaneously — delivers up to 1000 recharges per battery. "Safe-T-Plug" feature prevents burnouts. For 120 VAC. U.L. listed.

910-5215. Type 270-1530. . Each 7.95

BATTERY CHARGER



- **Pays for Itself in Batteries Saved**
- **For AA, C or D Alkaline Rechargeables**

Model BC-16. Fully recharges batteries in 14 to 18 hours. Batteries provide up to 50 cycles use under normal conditions. Positive-action terminals. 9¾ x 4¾ x 2¾". Shpg. wt. 1 lb.

853R3700 ..... Each 17.54

Miniature and Subminiature Switches

QUICK INDEX TO SWITCHES

Illuminated, Pushbutton & Slide
Alco 127
Arrow-Hart 126
Cutler-Hammer 125, 126, 127
Grayhill 127
Switchcraft 126, 127

Miniature, Subminiature
Alco 123, 127, 129
Allied 123, 127
Arrow-Hart 123
Centralab 130
Cutler-Hammer .. 123, 126, 127, 131
Grayhill 127, 128
Robertshaw 131
Switchcraft 127

Multipole
T-Bar 129

Multiswitch
Switchcraft 126

Ribbon, Mat & Foot
Allied 128

Rocker, Paddle Lever
Allied 127
Centralab 128
Grayhill 128
Switchcraft 127, 128

Rotary
Alco 129
Centralab 129, 130
CTS 130
Cutler-Hammer 129, 130
Grayhill 131
Mallory 129

Snap Action
Robertshaw 131
Cutler-Hammer 131

Thumbwheel
Interswitch 128

Toggle Switch
Arrow-Hart 125
Cutler-Hammer 124, 125
JBT 125

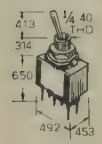
CROSS-REFERENCE

ALCO	C & K	C/H	JBT	MICRO-SWITCH	RAYTHEON
MST105D	7101SYZ	SF1SCY191	JMT123	1TW1-3	105D
MST105E	7103SYZ	SF1SBY191	JMT121	1TW1-1	105E
MST105G	7105SYZ	SF1SHX191	JMT127	1TW1-7	105G
MST205N	7201SYZ	SF2SCY191	JMT223	2TW1-3	205N

ALCO	C & K	C/H	JBT	MICRO-SWITCH	RAYTHEON
MST205P	7203SYZ	SF2SBY191	JMT221	2TW1-1	205P
MST205PA	7211SYZ	—	JMT232	—	205PA
MST305D	7301SYZ	SF3SCY191	JMT323	—	305D
MST405N	7401SYZ	SF4SCY191	JMT423	—	405N

MTA SUBMINIATURE TOGGLE SWITCHES

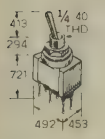
NEW!



High current rating and long life. Small DAP case is ideal for miniaturized equipment with critical space limitations. Solid silver contacts and molded-in copper alloy terminals are gold flashed for easy soldering. "No-tear" bushing and anti-push-in captivation. Internal and external barriers. ¼"-40 bushing with keyway. MTA Series is U.L. listed and rated at 6 amps at 125 VAC, 3 amps at 250 VAC (File No. E46765). Initial contact resistance is 20 milliohms at 2-4 VDC, 1A. *Momentary contact. PC types have .250" long straight terminals for up-right mounting.

Stock No.	Mfr's Type MTA-	Replaces Mfr's Type MST-	Circuit	Action	EACH 1-24	25-49	50-Up
700-5901	106D	105D	SPDT	On-None-On	1.75	1.31	1.19
700-5905	106D-PC	105D-PC	SPDT	On-None-On	1.85	1.39	1.26
700-5902	106E	105E	SPDT	On-Off-On	2.05	1.54	1.39
700-5910	106F	105F	SPDT	On-None-On*	2.05	1.54	1.39
700-5915	106G	105G	SPDT	On*-Off-On*	2.05	1.54	1.39
700-5920	106H	105H	SPDT	On-Off-On*	2.05	1.54	1.39
700-5925	206N	205N	DPDT	On-None-On	2.35	1.76	1.60
700-5965	206N-PC	205N-PC	DPDT	On-None-On	2.55	1.91	1.73
700-5970	206P	205P	DPDT	On-Off-On	2.70	2.03	1.84
700-5975	206PA	205PA	DPDT	On-On-On	2.95	2.21	2.01
700-5980	206R	205R	DPDT	Ln-None-On	2.70	2.03	1.84
700-5985	206S	205S	DPDT	On*-Off-On*	2.70	2.03	1.84
700-5990	206T	205T	DPDT	On-Off-On*	2.70	2.03	1.84
700-5995	306D	305D	3PDT	On-None-On	3.90	2.93	2.65
700-6000	306E	305E	3PDT	On-Off-On	4.20	3.15	2.86
700-6005	406N	405N	4PDT	On-None-On	5.00	3.75	3.40
700-6010	406P	405P	4PDT	On-Off-On	5.40	4.05	3.67
700-6015	406PA	.....	4PDT	On-On-On	6.15	4.61	4.18

MST TOGGLE SERIES



Popular subminiature toggle switches. Rated 6 amps at 125 VAC or 4 amps at 28 VDC. Solid silver contacts and terminals (center terminal, copper with silver plate). Phenolic case. "No-tear" bushing.

Stock No.	Mfr's Type MST-	Circuit	Action	EACH 1-9	10-24	25-Up
700R5780	105D	SPDT	On-None-On	1.75	1.31	1.19
700R5781	105E	SPDT	On-Off-On	2.05	1.54	1.39
700R5795	205N	DPDT	On-None-On	2.30	1.73	1.56
700R5797	205P	DPDT	On-Off-On	2.70	2.03	1.84
700R5798	205PA	DP3T	On-On-On	2.95	2.21	2.01
700R5820	305D	3PDT	On-None-On	3.90	2.93	2.65
700-5840	405N	4PDT	On-Off-On	5.00	3.75	3.40

MTE AND MTG TOGGLES

U.L. listed switches offer the same basic features as MTA series. MTE waterproof types have "O" ring seals in bushing and between panel and bushing. MTG types have conventional 15/32" hole mounting and larger lever. Rated 6 amps at 125 VAC or 3 amps at 250 VAC. 1 oz.

Stock No.	Mfr's Type	Circuit	Action	EACH 1-9	10-24	25-Up
700-6020	MTE-106D	SPDT	On-None-On	2.48	1.61	1.46
700-6030	MTE-206N	DPDT	On-None-On	2.95	2.06	1.87
700-6080	MTG-106D	SPDT	On-None-On	2.48	1.73	1.56
700-6384	MTG-206N	DPDT	On-None-On	3.13	2.18	1.97
700-6385	MTG-206PA	DP3T	On-On-On	3.78	2.63	2.38
700-6387	MTG-306D	3PDT	On-None-On	4.78	3.34	3.03

SUBMINIATURE TOGGLE SWITCHES

Gold-plated silver contacts; gold plated brass terminals; diallyl phthalate bases. Rated 5A resistive @ 29VDC/115VAC; meets MIL-S-3950. MS-75028, SPDT; MS-75029, DPDT. Shpg. wt. 1 oz.

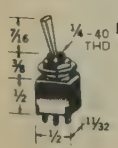
Stock No.	Mfr's Type	Mil Spec. No.	Circuit	Action	EACH
717-0075	TC-3M	75028-21	SPDT	On-Off-On	5.53
717-0090	TS-3M	75028-23	SPDT	On-None-On	5.53
717-0095	TS-6M	75029-23	DPDT	On-None-On	7.08

STANDARD SMALL LEVER SWITCHES

¼-40 bushing. Solder lug term. Rated 5 A @ 125 VAC or 28 VDC except On-On, 10 A.

Stock No.	Mfr's Type	Action	EACH 1-9	10-24	25-Up
ONE POLE					
757-0246	SF1SBX191	On-Off-On	2.18	2.07	1.39
757R0252	SF1SCY191	On-On	1.85	1.76	1.18
TWO POLE					
757-0247	SF2SBX191	On-Off-On	2.88	2.73	1.83
757R0254	SF2SCY191	On-On	2.40	2.29	1.53
THREE POLE					
757-0255	SF3SCY191	On-On	4.10	3.91	2.62

FLATTED LEVER SWITCHES



On-On rated 10A @ 125 VAC; On-Off-On 5A. ¼-40 bshg.; solder lug terminals.

ONE POLE					
757-0242	SF1SBX195	On-Off-On	3.05	2.90	1.94
757-0243	SF1SCY195	On-On	2.73	2.60	1.74
TWO POLE					
757-0244	SF2SBX195	On-Off-On	3.75	3.57	2.39
757-0245	SF2SCY195	On-On	3.28	3.12	2.09

ULTRAMINIATURE TOGGLE SWITCHES WITH SOLDER TERMINALS

Rated 3 A @ 125 VAC or 28 VDC. ¼-40 bushing. Approximately half behind-panel size of miniature switches.

Stock No.	Mfr's Type	Action	EACH 1-9	10-24	25-Up
ONE POLE					
757-0291	SF11SBT191	On-Off-On	1.98	1.88	1.26
757-0292	SF11SCT191	On-On	1.68	1.60	1.07
TWO POLE					
757-0293	SF12SBT191	On-Off-On	2.60	2.48	1.66
757-0294	SF12SCT191	On-On	2.18	2.08	1.39

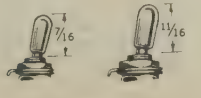
ULTRAMINIATURE TOGGLE SWITCHES WITH PRINTED CIRCUIT TERMINALS

3A @ 125 VAC or 28 VDC. ¼-40 bshg. About half behind-panel space of miniature switches.

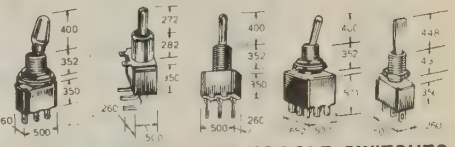
Stock No.	Mfr's Type	Action	EACH 1-9	10-24	25-Up
ONE POLE					
757-0295	SF11SBT691	On-Off-On	2.08	1.98	1.33
757-0296	SF11SCT691	On-On	1.78	1.70	1.14
TWO POLE					
757-0297	SF12SBT691	On-Off-On	2.83	2.68	1.80
757-0298	SF12SCT691	On-On	2.40	2.28	1.53

ACCESSORY TOGGLE LEVER CAPS

Slip on toggle to give color-coordinated lever. Small lever are plastic; large, vinyl.



Stock No.	Type SW49-	Size	Color	EACH 1-24	25-Up
757-0301	AA1	Small	White	.05	.03
757-0302	AA2	Small	Red	.05	.03
757-0303	AA3	Small	Black	.05	.03
757-0304	AA4	Small	Blue	.05	.03
757-0305	AA5	Small	Yellow	.05	.03
757-0306	AA6	Small	Green	.05	.03
757-0311	AA11	Large	White	.07	.04
757-0312	AA12	Large	Red	.07	.04
757-0313	AA13	Large	Black	.07	.04
757-0314	AA14	Large	Blue	.07	.04
757-0315	AA15	Large	Yellow	.07	.04
757-0316	AA16	Large	Green	.07	.04



ALLIED SUBMINIATURE TOGGLE SWITCHES

JMT Series. Single pole type, ¼" thin, double pole less than ½" sq. Single hole mounting, ¼" threaded bushing. 5 amps, 125 VAC; 24 VDC. Initial contact resistance, 5 mΩ. Insul. resis., 10,000 MΩ. Life, 100,000 make/break cycles. Bat handles, 30° throw. Silver contacts. **LFH Series.** Flat handles. **MPC Series.** For direct insertion in PC boards. Terminals, gold plated over nickel. **TO2 Series.** Right-angle mounting switches, 0.5 watts @ 25V AC/DC.

SPDT—3 TERMINALS *Momentary pos.

Stock No.	Mfr's Type	Action	EACH 1-9	10-29	30-99	100-Up
826-2501	MPC-121	On-Off-On	2.70	1.61	1.45	1.25
826-2503	MPC-123	On-None-On	2.35	1.38	1.24	1.06
826-4811	TO2-121	On-Off-On	2.85	1.76	1.63	1.42
826-4813	TO2-123	On-None-On	2.55	1.53	1.42	1.22
3-POLE DT—9 TERMINALS						
826-1427	JMT-327	On-Off-On*	4.90	3.23	2.93	2.56
4-POLE DT—12 TERMINALS						
826-1462	JMT-432	On-On-On	6.50	4.40	4.00	3.50
DPDT—6 TERMINALS						
826-1392	JMT-232	On-On-On	3.35	2.09	1.90	1.66
826-2414	LFH-221	On-Off-On	4.00	2.75	2.42	2.06
826-2507	MPC-223	On-None-On	2.86	1.76	1.59	1.37

Color Coded Caps for JMT Series. Add numeric suffix to replace X in Stock No. to indicate desired color. 0-black; 2-red; 4-yellow; 5-green; 6-blue; 9-white. **826-134X.** Pkg. of 10 per color.
1-3 Pkgs. Ea. .53 4-19 Pkgs. Ea. .42 20-39 Pkgs. Ea. .35

WATERTIGHT SMALL LEVER SWITCHES

Sealed to withstand a 3.3 ft. head of water for 15 minutes. On-Off-On rated 5 A @ 125 VAC, On-On 10 A @ 125 VAC. Solder lug terminals.

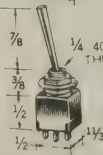
Stock No.	Mfr's Type	Action	EACH 1-9	10-24	25-Up
ONE POLE					
757-0281	SF1WBX191	On-Off-On	2.68	2.55	1.71
757-0287	SF1WCY191	On-On	2.21	2.10	1.41
TWO POLE					
757-0282	SF2WBX191	On-Off-On	3.43	3.25	2.18
757-0288	SF2WCY191	On-On	2.78	2.65	1.78

LARGE BUSHING AND LEVER SWITCHES

On-On rated 10A, On-Off-On 5A @ 125 VAC. 15/32-32 bshg.; solder lugs.

ONE POLE					
757-0221	SF1GBX191	On-Off-On	2.90	2.75	1.84
757-0226	SF1GCY191	On-On	2.25	2.15	1.44
TWO POLE					
757-0222	SF2GBX191	On-Off-On	3.53	3.35	2.25
757-0227	SF2GCY191	On-On	2.90	2.75	1.84

LONG LEVER SWITCHES



On-On rated 10A @ 125 VAC, On-Off-On 5A. ¼-40 bshg.; solder lug terminals.

ONE POLE					
757-0219	SF1SBX196	On-Off-On	2.18	2.07	1.39
757-0220	SF1SCY196	On-On	1.85	1.76	1.18
TWO POLE					
757-0230	SF2SBX196	On-Off-On	2.88	2.73	1.83
757-0231	SF2SCY196	On-On	2.40	2.29	1.53

Designer Line and AC-DC Rated Toggle Switches

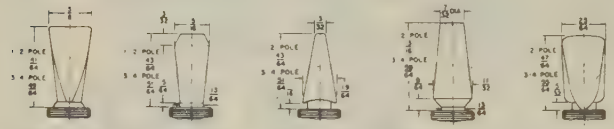
DESIGNER LINE" TOGGLE SWITCHES TO FIT ANY REQUIREMENT

Make your own toggle switch! Easy to do! Simply specify Basic Switch Type (1-, 2-, 3- or 4-poles) + Lever Style (C, D, E, F or G) + Lever Color Code (21 thru 27) to get **COMPLETE PART NUMBER**. **Example:** you want Basic Switch Type 7590K73 with Lever Style C and Lever Color 21. The Complete Part Number will be 7590K73C21.

The Allied Stock Number is just as easy to complete! First X in stock number replace with Lever Style Number (3, 4, 5, 6 or 7). Second X replace with Lever Color Number (1 thru 7). **Example:** Stock Number for 7590K73C21 is 531-1631.

LEVER STYLES

*Substitute these numbers for first X in Allied Stock Number.



Style C = 3" Style D = 4" Style E = 5" Style F = 6" Style G = 7"

LEVER COLOR CODE

**Substitute these numbers for second X in Allied Stock Number.

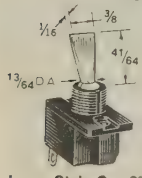
Color	Basic Code	Stock No. Suffix**	Color	Basic Code	Stock No. Suffix**
White	21	1	Yellow	25	5
Red	22	2	Blue	26	6
Gray	23	3	Black	27	7
Green	24	4	.....	...	..

AC RATED "DESIGNER LINE" TOGGLE SWITCHES

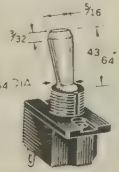
Nylon toggles. Bushing diameter: 15/32" with 15/32" x 32 thread. Momentary contact. K73 in Basic Switch Type Column indicates screw-type terminals and K74 solder-type. Wt. 2 oz.

Stock No.	Basic Switch Type	Amps @ 125 V	Amps @ 250 V	Circuit	EACH 1-24	EACH 25-Up
SINGLE POLE						
531-16XX	7590K73	6	3	On-Off	2.08	1.66
531-17XX	7590K74	6	3	On-Off	1.66	1.33
531-20XX	7591K73	6	3	On-Off-On	2.51	2.01
531-21XX	7591K74	6	3	On-Off-On	1.89	1.51
531-24XX	7592K73	6	3	On-On	2.51	2.01
531-25XX	7592K74	6	3	On-On	1.89	1.51
531-26XX	7597K73	6	3	On*-Off-On*	3.19	2.55
531-27XX	7597K74	6	3	On*-Off-On*	2.84	2.27
531-01XX	7560K73	15	10	On-Off	2.51	2.01
531-03XX	7561K74	15	10	On-Off	2.08	1.66
531-05XX	7562K73	15	10	On-Off-On	3.14	2.51
531-07XX	7563K74	15	10	On-Off-On	2.51	2.01
531-09XX	7564K73	15	10	On-On	3.14	2.51
531-11XX	7565K74	15	10	On-On	2.51	2.01
DOUBLE POLE						
531-14XX	7590K53	6	3	On-Off	2.43	1.94
531-15XX	7590K54	6	3	On-Off	2.01	1.61
531-18XX	7591K53	6	3	On-Off-On	2.86	2.29
531-19XX	7591K54	6	3	On-Off-On	2.24	1.79
531-22XX	7592K53	6	3	On-On	2.86	2.29
531-23XX	7592K54	6	3	On-On	2.24	1.79
531-12XX	7569K53	15	10	On*-Off-On*	4.51	3.61
531-13XX	7569K54	15	10	On*-Off-On*	3.86	3.09
531-00XX	7560K53	15	10	On-Off	2.86	2.29
531-02XX	7561K54	15	10	On-Off	2.43	1.94
531-04XX	7562K53	15	10	On-Off-On	3.49	2.79
531-06XX	7563K54	15	10	On-Off-On	2.86	2.29
531-08XX	7564K53	15	10	On-On	3.49	2.79
531-10XX	7565K54	15	10	On-On	2.86	2.29
TRIPLE POLE						
531-28XX	7690K73	15	10	On-Off	7.27	5.82
531-30XX	7692K73	15	10	On-Off-On	9.11	7.29
531-31XX	7694K73	15	10	On-On	9.11	7.29
FOUR POLE						
531-32XX	7690K53	15	10	On-Off	7.62	6.10
531-29XX	7692K53	15	10	On-Off-On	9.46	7.57

AC-DC "DESIGNER LINE" TOGGLE SWITCHES



Lever Style C = 3"



Lever Style D = 4"

Two lever styles/five colors. Double insulated; quick-make, quick-break contact mechanism. Nylon bushing: 15/32" dia., 11/32" long. Solder lug terminals. UL/CSA listed. Av. shpg. wt. 2 oz.

ON-OFF CIRCUIT

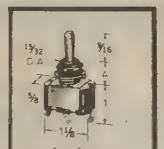
SINGLE POLE (6 A @ 125 V, 3 A @ 250 V)

Stock No.	Mfr's Type	Lever Color	EACH 1-24	EACH 25-Up
757R7050	8381K21C	White	1.26	.97
757R7052	8381K22C	Red	1.26	.97
757-7058	8381K22D	Red	1.26	.97
757-7062	8381K25C	Yellow	1.26	.97
757R7070	8381K27C	Black	1.26	.97
757-7060	8381K24C	Green	1.26	.97
DOUBLE POLE (1 A @ 125 V, 3 A @ 250 V)				
757-6860	8370K21C	White	2.00	1.55
757-6862	8370K22C	Red	2.00	1.55
757-6880	8370K27C	Black	2.00	1.55

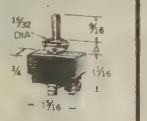
ON-ON CIRCUIT

SINGLE POLE (3 A @ 125 V, 1 A @ 250 V)

757-6501	8282K21C	White	1.37	1.06
757-6503	8282K22C	Red	1.37	1.06
757-6512	8282K25C	Yellow	1.37	1.06
757-6520	8282K27C	Black	1.37	1.06
757-6510	8282K24C	Green	1.37	1.06
DOUBLE POLE (6 A @ 125 V, 3 A @ 250 V)				
757-6920	8373K21C	White	2.26	1.75
757R6922	8373K22C	Red	2.26	1.75
757-6932	8373K25C	Yellow	2.26	1.75
757-6940	8373K27C	Black	2.26	1.75
757-6941	8373K27D	Black	2.26	1.75
757-6930	8373K24C	Green	2.26	1.75



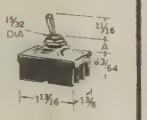
1-pole



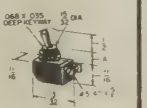
2-pole

3-pole

4-pole



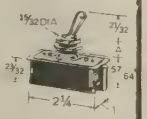
8320K1



SP On-Off

SP On-On

DP On-Off



DP On-On

AC RATED TOGGLE SWITCHES

Slow-make, slow-break rocker style contact. Spade terminals, 1/4" wide. Mtg hdwe incl. UL/CSA listed. †Momentary contact in "on" position. All have 11/32" bushing length, except ‡ have 15/32".

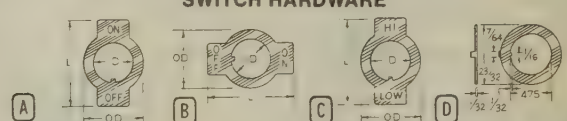
Stock No.	Mfr's Type	Circuit	Amps @ 125V	Amps @ 250V	Terminals	EACH 1-24	EACH 25-Up
SINGLE POLE							
757R4886	7580K5	On-Off	6	3	Screw	1.16	.90
757-4885	‡7580K4	On-Off	6	3	Screw	1.16	.90
757R4888	7580K7	On-Off	6	3	Solder	1.01	.78
757R4887	‡7580K6	On-Off	6	3	Solder	1.01	.78
757R4000	7500K13	On-Off	15	10	Screw	1.33	1.03
757R4001	‡7500K14	On-Off	15	10	Screw	1.33	1.03
757-4020	7501K12	On-Off	15	10	Solder	1.16	.90
757R4021	‡7501K13	On-Off	15	10	Solder	1.16	.90
757-4022	‡7501K15	On-Off	15	10	Spade	1.16	.90
757-4254	††7506K4	†On-Off	..	..	Screw	1.74	1.35
757-4924	‡7582K4	On-On	6	3	Screw	1.33	1.03
757-4926	‡7582K6	On-On	6	3	Solder	1.09	.84
757-4200	7504K3	On-On	15	10	Screw	1.57	1.21
757-4201	‡7504K4	On-On	15	10	Screw	1.57	1.21
757-4904	‡7581K4	On-Off-On	6	3	Screw	1.33	1.03
757-4907	7581K7	On-Off-On	6	3	Solder	1.09	.84
757-4906	‡7581K6	On-Off-On	6	3	Solder	1.09	.84
757-4069	7502K12	On-Off-On	15	10	Screw	1.57	1.21
757-4070	‡7502K13	On-Off-On	15	10	Screw	1.57	1.21
757-4091	‡7503K13	On-Off-On	15	10	Solder	1.33	1.03
757-4270	††7509K5	†On-Off-†On	..	10	Screw	2.03	1.57
DOUBLE POLE							
757R4940	‡7590K4	On-Off	6	3	Screw	1.77	1.37
757-4943	7590K7	On-Off	6	3	Solder	1.44	1.12
757-4942	‡7590K6	On-Off	6	3	Solder	1.44	1.12
757R4501	7560K6	On-Off	15	10	Screw	2.10	1.63
757R4500	‡7560K5	On-Off	15	10	Screw	2.10	1.63
757-4561	7561K5	On-Off	15	10	Solder	1.77	1.37
757-4560	‡7561K4	On-Off	15	10	Solder	1.77	1.37
757-5004	‡7592K4	On-On	6	3	Screw	2.10	1.63
757-5007	7592K7	On-On	6	3	Solder	1.62	1.25
757-5006	‡7592K6	On-On	6	3	Solder	1.62	1.25
757-4761	7564K7	On-On	15	10	Screw	2.59	2.00
757-4760	‡7564K6	On-On	15	10	Screw	2.59	2.00
757-4806	7565K6	On-On	15	10	Solder	2.10	1.63
757-4805	‡7565K5	On-On	15	10	Solder	2.10	1.63
757-4970	‡7591K4	On-Off-On	6	3	Screw	2.10	1.63
757-4973	7591K7	On-Off-On	6	3	Solder	1.62	1.25
757-4972	‡7591K6	On-Off-On	6	3	Solder	1.62	1.25
757-4591	7562K5	On-Off-On	15	10	Screw	2.59	2.00
757-4590	‡7562K4	On-Off-On	15	10	Screw	2.59	2.00
757-4721	7563K5	On-Off-On	15	10	Solder	2.10	1.63
757-4720	‡7563K4	On-Off-On	15	10	Solder	2.10	1.63
757-4861	††7569K2	†On-Off-†On	15	10	Screw	3.38	2.62
757-4860	††7569K1	†On-Off-†On	15	10	Solder	2.87	2.22
THREE POLE (All have 15/32" Bushing Length)							
757-5070	7610K2	On-Off	15	10	Screw	4.03	3.12
757-5071	7611K2	On-Off	15	10	Solder	3.46	2.68
757-5620	8320K1	On-Off	..	20	Screw	7.36	5.70
757-5090	7614K2	On-On	15	10	Screw	5.12	3.96
757-5095	7615K2	On-On	15	10	Solder	4.26	3.29
757R5080	7612K2	On-Off-On	15	10	Screw	5.12	3.96
757-5085	7613K2	On-Off-On	15	10	Solder	4.25	3.29
FOUR POLE (All have 15/32" Bushing Length)							
757-5170	7690K8	On-Off	15	10	Screw	5.79	4.48
757-5194	7694K4	On-On	15	10	Screw	7.22	5.59
757-5205	7695K5	On-On	15	10	Solder	6.36	4.92
757-5192	7692K13	On-Off-On	15	10	Screw	7.22	5.59
757-5190	7693K2	On-Off-On	15	10	Solder	6.35	4.93

AC-DC RATED TOGGLE SWITCHES

Quick-make, quick-break contact with wiping action. Arc-resistant. 15/32" dia bushing; mtg hdwe incl. U.L. and C.S.A. listed. All have 11/32" bushing length, except (*) have 1/4" and (†) have 15/32". Wt. 2 oz.

Stock No.	Mfr's Type	Circuit	Amps @ 125V	Amps @ 250V	Terminals	EACH 1-24	EACH 25-Up
SINGLE POLE 2-POSITION SWITCHES							
757R6301	*8280K14	On-Off	..	3	Solder	1.10	.85
757-6302	8280K15	On-Off	..	3	Solder	1.10	.85
757-6303	†8280K16	On-Off	..	3	Solder	1.10	.85
757-6555	8295K7	On-Off	..	3	Screw	1.33	1.03
757-6566	†8295K8	On-Off	..	3	Screw	1.33	1.03
757-7040	8381K7	On-Off	6	3	Solder	1.27	.98
757-7041	†8381K8	On-Off	6	3	Solder	1.27	.98
757-7085	8391K7	On-Off	6	3	Wire	1.50	1.16
757-7086	†8391K8	On-Off	6	3	Wire	1.50	1.16
757-7096	8396K7	On-Off	6	3	Screw	1.50	1.16
757-7097	†8396K8	On-Off	6	3	Screw	1.50	1.16
757-3750	7321K2	On-Off	16	8	Screw	2.38	1.84
757-3751	†7321K3	On-Off	16	8	Screw	2.38	1.84
757-3770	†7361K5	On-Off	20	10	Screw	4.00	3.10
757-6379	*8282K12	On-On	3	1	Solder	1.40	1.08
757-6380	8282K13	On-On	3	1	Solder	1.40	1.08
757-6381	†8282K14	On-On	3	1	Solder	1.40	1.08
DOUBLE POLE 2-POSITION SWITCHES							
757-6656	*8360K6	On-Off	..	3	Solder	1.98	1.54
757-6657	†8360K7	On-Off	..	3	Solder	1.98	1.54
757-6841	8370K8	On-Off	6	3	Solder	2.14	1.66
757-6840	†8370K7	On-Off	6	3	Solder	2.14	1.66
757-6895	†8372K7	On-Off	6	3	Screw	2.60	2.02
757-3720	7320K2	On-Off	16	8	Screw	2.22	1.72
757-3721	†7320K3	On-Off	16	8	Screw	2.22	1.72
757-3760	7360K7	On-Off	20	10	Screw	3.83	2.96
757-3761	†7360K8	On-Off	20	10	Screw	3.83	2.96
757-3802	7402K3	On-Off	20	20	Screw	5.15	3.98
757-3803	†7402K4	On-Off	20	20	Screw	5.15	3.98
757-6806	*8363K6	On-On	.	3	Solder	2.29	1.78
757-6825	†8365K7	On-On	.	3	Screw	3.02	2.33
757-6911	8373K8	On-On	6	3	Solder	2.46	1.90
757-6910	†8373K7	On-On	6	3	Screw	2.46	1.90
757-7005	†8375K7	On-On	6	3	Screw	3.16	2.45

SWITCH HARDWARE



For 15/32" diameter bushing toggle switches. Types (A), (B) and (C) are keyway switch plates. (D) is a locking ring. Locking ring, washer in package of 100. Av. shpg. wt. 8 oz.

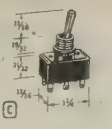
Stock No.	Mfr's Type	Fig.	EACH 1-49	EACH 50-Up
757R2813	30-5632-4	A	.12	.08
757-2816	30-5632-13	B	.12	.08
757-2803	30-5632-16	C	.12	.08
757-2229	29-761-3	D	*	*

*Per Pkg. 100 1-4 7.75 5-10 4.00

Toggle and Pushbutton Switches

TOGGLE SWITCHES FOR INDUSTRIAL AND COMMERCIAL APPLICATIONS

Small laminated canopy, intermediate, molded heavy-duty power and midget switches. Figs. E and G are AC-only with high capacity and small size. All have 15/32" shank except ‡13/32". Shank diameter 15/32" except §3/4". †Fine silver buttons. Solder terminals except #screw terminals. All with 2 mtg. nuts. U.L. Recognized. Av. shpg. wt. 4 oz.



SPST (2-POSITION—ON-OFF) *Momentary

Stock No.	Mfr's Type	Fig.	Amperes 125V	Amperes 250V	hp	Wiping Action	Silver-Plated Contacts	Silver-Plated Terms	EACH 1-24	25-99	100-499	500-Up
717R0330	20994LH	A	.....	3	....	No	No	No	1.88	1.50	.94	.75
717-0320	‡20994BF	B	.....	3	....	No	No	No	1.88	1.50	.94	.75
717-0325	20994CS	B	.....	3	....	No	No	No	1.88	1.50	.94	.75
717-0465	81015AW	C	6	3	....	Yes	Yes	No	1.86	1.49	.93	.74
717-0472	*81045FB	C	6	3	....	Yes	Yes	No	2.95	2.36	1.48	1.18
717-0616	83050	D	3	1	....	Yes	Yes	Yes	1.86	1.49	.93	.74
717-0601	83001	E	6	3	1/6	No	Yes	No	1.29	1.03	.65	.52
717R0520	#82600	E	15	10	3/4	No	Yes†	No	1.68	1.34	.84	.67
717R0523	82601	E	15	10	3/4	No	Yes†	No	1.47	1.18	.74	.59

SPDT (2-POSITION—ON-NO-ON) *Momentary

Stock No.	Mfr's Type	Fig.	Amperes 125V	Amperes 250V	hp	Wiping Action	Silver-Plated Contacts	Silver-Plated Terms	EACH 1-24	25-99	100-499	500-Up
717-0340	21350EH	A	3	1	....	No	No	No	2.36	1.89	1.18	.94
717-0467	81021AV	C	6	1	....	Yes	Yes	No	2.22	1.78	1.11	.89
717-0473	*81051G	C	6	1	....	Yes	Yes	No	3.22	2.58	1.61	1.29
717-0607	83007	E	6	3	1/6	No	Yes	No	1.36	1.09	.68	.54
717-0532	#82604	E	15	10	3/4	No	Yes†	No	2.02	1.62	1.01	.81

SPDT (3-POSITION—ON-OFF-ON)

Stock No.	Mfr's Type	Fig.	Amperes 125V	Amperes 250V	hp	Wiping Action	Silver-Plated Contacts	Silver-Plated Terms	EACH 1-24	25-99	100-499	500-Up
717-0510	82022HD	F	6	3	....	Yes	Yes	No	3.60	2.88	1.80	1.44
717-0604	83004	E	6	3	1/6	No	Yes	No	1.36	1.09	.68	.54
717R0526	#82602	E	15	10	3/4	No	Yes†	No	2.02	1.62	1.01	.81
717-0529	82603	E	15	10	3/4	No	Yes†	No	1.68	1.34	.84	.67

3 AND 4-POLE AC SWITCHES **Not illustrated

Stock No.	Mfr's Type	Fig.	Action	Amp 125 VAC	Amp 250 VAC	EACH 1-24	25-49	50-99	100-Up
717-0555	82615	J	3PDT (On-Off-On)	15	10	5.84	4.67	2.92	2.34
717-0567	82617	J	3PDT (On-None-On)	15	10	5.49	4.39	2.75	2.20
717-0585	82636	**	4PDT (On-None-On)	15		8.22	6.58	4.11	3.29

DPST (2-POSITION—ON-OFF) *Momentary N.O.

Stock No.	Mfr's Type	Fig.	Amperes 125V	Amperes 250V	hp	Wiping Action	Silver-Plated Contacts	Silver-Plated Terms	EACH 1-24	25-99	100-499	500-Up
717-0302	20902CX	A	3	1	....	No	No	No	3.41	2.73	1.71	1.36
717-0469	81024GB	C	6	3	....	Yes	Yes	No	2.76	2.21	1.38	1.10
717-0475	*81054H	C	6	3	....	Yes	Yes	No	3.86	3.09	1.93	1.54
717-0619	83053	D	3	1	....	Yes	Yes	Yes	2.76	2.21	1.38	1.10
717R0440	#80600B	H	16	8	1	Yes	Yes	Yes	2.83	2.26	1.42	1.13
717-0442	#80602C	H	20	10	1½	Yes	Yes	Yes	4.94	3.95	2.47	1.98
717-0417	#80421	H	.....	20	1½	Yes	Yes	Yes	6.63	5.30	3.32	2.65
717-0610	83025	G	6	3	1/4	No	Yes	No	1.86	1.49	.93	.74
717-0538	#82606	G	15	10	3/4	No	Yes†	No	2.71	2.17	1.36	1.08
717-0540	82607	G	15	10	3/4	No	Yes†	No	2.29	1.83	1.15	.92

DPDT (2-POSITION—ON-NO-ON) *Momentary

Stock No.	Mfr's Type	Fig.	Amperes 125V	Amperes 250V	hp	Wiping Action	Silver-Plated Contacts	Silver-Plated Terms	EACH 1-24	25-99	100-499	500-Up
717-0315	20905FR	A	3	1	....	No	No	No	3.90	3.12	1.95	1.56
717-0471	81027CE	C	6	3	....	Yes	Yes	No	3.17	2.54	1.59	1.27
717-0477	*81057N	C	6	3	....	Yes	Yes	No	4.66	3.73	2.33	1.86
717-0620	83054	D	3	1	....	Yes	Yes	Yes	3.17	2.54	1.59	1.27
717-0614	83031	G	6	3	1/6	No	Yes	No	2.08	1.66	1.04	.83
717-0550	82610	G	15	10	3/4	No	Yes†	No	3.34	2.67	1.67	1.34
717R0551	82611	G	15	10	3/4	No	Yes†	No	2.71	2.17	1.36	1.08

DPDT (3-POSITION—ON-OFF-ON)

Stock No.	Mfr's Type	Fig.	Amperes 125V	Amperes 250V	hp	Wiping Action	Silver-Plated Contacts	Silver-Plated Terms	EACH 1-24	25-99	100-499	500-Up
717-0514	82024HD	F	6	3	....	Yes	Yes	No	4.43	3.54	2.20	1.77
717R0612	83028	G	6	3	3/4	No	Yes	No	2.08	1.66	1.04	.83
717R0544	#82608	G	15	10	3/4	No	Yes†	No	3.34	2.67	1.67	1.34
717-0541	82609	G	15	10	3/4	No	Yes†	No	2.71	2.17	1.36	1.08

DPDT—3-Position—On-Positive Off-On. (Not illus.) Cannot move through center position without stopping. 10 amps at 125 V/5 amps at 250V. 3/4 hp. Wiping action. Silver plated contacts.
717-0454. Type #80638D§‡. 1-24.....Each 8.23 25-99.....Each 6.58
100-499.....Each 4.12 500-Up.....Each 3.29

JAN-S-23 HEAVY-DUTY TOGGLE TYPES

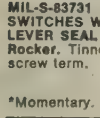
10 A @ 117 VAC, 20 A @ 28 VAC. Solder lug term. *Momentary. †Silicone rubber lever seal. 2 oz.

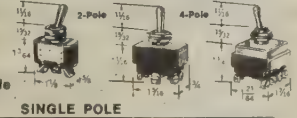
SINGLE POLE

Stock No.	Mfr's Type	JAN No. ST-	Lever	EACH 1-24	25-49	50-99	100-Up
757-7730	8803K6	42A	On-None-Off	2.29	1.77	1.48	1.18
757-7734	8803K10†	42A	On-None-Off	2.40	1.86	1.55	1.24
757-7790	8816K5	42D	On-None-On	2.91	2.25	1.88	1.50
757-7720	8802K6	42E	On-Off-On	2.53	1.95	1.63	1.30
757-7820	8818K5	42G	On*-Off-On*	2.75	2.13	1.78	1.42
757-7780	8815K6	42H	On-Off-On*	2.75	2.13	1.78	1.42

DOUBLE POLE

Stock No.	Mfr's Type	JAN No. ST-	Lever	EACH 1-24	25-49	50-99	100-Up
757R7863	8823K5	52K	On-None-Off	3.22	2.49	2.08	1.66
757-7875	8825K5	52N	On-Off-None	3.22	2.49	2.08	1.66
757R7851	8821K5	52P	On-Off-On	3.29	2.55	2.13	1.70
757-7890	8831K5	52R	On-None-On*	4.19	3.24	2.70	2.16
757-7910	8835K3	52S	On*-Off-On*	4.19	3.24	2.70	2.16
757-7897	8833K3	52T	On-Off-On*	4.19	3.24	2.70	2.16





MIL-S-83731 SWITCHES W/ LEVER SEAL
Rocker. Tinned screw term.
*Momentary. 2 oz.

SINGLE POLE

Stock No.	Mfr's Type	Gov't MS No.	Lever	EACH 1-24	25-49	50-99	100-Up
757-7680	8800K16	35058-21	On-Off-On	2.87	2.22	1.85	1.48
757R7701	8801K22	35058-22	On-None-Off	2.53	1.95	1.63	1.30
757-7750	8810K15	35058-23	On-None-On	2.87	2.22	1.85	1.48
757-7770	8812K14	35058-27	On*-Off-On*	3.18	2.46	2.05	1.64

DOUBLE POLE

Stock No.	Mfr's Type	Gov't MS No.	Lever	EACH 1-24	25-49	50-99	100-Up
757R7845	8820K16	35059-21	On-Off-On	3.88	3.00	2.50	2.00
757R7855	8822K20	35059-22	On-None-Off	3.45	2.67	2.23	1.78
757-7869	8824K14	35059-23	On-None-Off	3.88	3.00	2.50	2.00
757-7904	8834K5	35059-27	On*-Off-On*	5.04	3.90	3.25	2.60

FOUR POLE

Stock No.	Mfr's Type	Gov't MS No.	Lever	EACH 1-24	25-49	50-99	100-Up
757-5127	7662K7	25068-21	On-Off-On	8.49	6.57	5.48	4.38
757-5134	7664K5	25068-23	On-None-On	8.49	6.57	5.48	4.38
757-5150	7672K5	25068-27	On*-Off-On*	10.96	8.49	7.08	5.66

ST SERIES JAN-S-23 MEDIUM-DUTY TOGGLE TYPES

JAN-S-23 single and double pole on-none-off switches. MIL-S-83731 ratings: 3 amps resistive at 125 VDC or 115 VAC, 1½ amps inductive at 125 VDC or 115 VAC. Continuity is made to terminals on same side as lever throw.

Stock No.	JAN-S-23 Type	MIL-S-83731 Type	Circuit	EACH 1-24	25-49	50-99	100-Up
826-4012	ST12A	MS25098-22	SPST	2.35	1.60	1.49	1.38
826-4276	ST22K	MS25100-22	DPST	3.38	2.30	2.15	1.95

ENVIRONMENTALLY SEALED TOGGLE SWITCHES

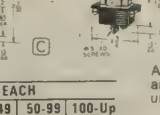
MIL-S-8834 POSITIVE ACTION. Toggle linked to movable contact member. Nylon filled molding and brass housing; environmental seal bonded to bushing and lever, seals under contacts and between base and shell. Screw term. Rated 25 A @ 28 VDC, 20 A @ 115 VAC res. *Momentary. †MS25306. ‡MS5307. 2 oz.

SINGLE POLE

Stock No.	Mfr's Type	Gov't MS	Lever	EACH 1-24	25-49	50-99	100-Up
757-7920	8836K1	†-212	On-Off-On	13.00	12.00	10.00	8.00
757-7928	8836K9	†-222	On-None-Off	12.68	11.70	9.75	7.80

DOUBLE POLE

Stock No.	Mfr's Type	Gov't MS	Lever	EACH 1-24	25-49	50-99	100-Up
757-7950	8837K1	‡-212	On-Off-On	17.55	16.20	13.55	10.80
757-7958	8837K9	‡-222	On-None-Off	17.39	16.05	13.38	10.70
757-7953	8837K4	‡-232	On-None-On	17.55	16.20	13.55	10.80
757-7951	8837K2	‡-272	On*-Off-On*	16.53	17.10	14.25	11.40



MIL-S-8834 SWITCHES
Toggle assembly linked to movable contact, insuring positive make and break. Detent mechanism. Gold plated self-wiping contacts: 3A @ 117 VAC, 4A @ 28 VDC res. *Momentary. Single pole, except †double. 2 oz

Stock No.	Mfr's Type (886)	Gov't Ms	Lever	EACH 1-24	25-49	50-99	100-Up
757-8076	6K1	24655-211	On-Off-On	7.36	5.70	4.75	3.80
757-8082	6K7	24655-221	On-None-Off	7.36	5.70	4.75	3.80
757-8079	6K4	24655-231	On-None-On	7.36	5.70	4.75	3.80
757-8107	†7K1	24656-211	On-Off-On	9.03	6.99	5.83	4.66
757-8110	†7K4	24656-231	On-None*On	9.03	6.99	5.83	4.66

ENVIRONMENTALLY-SEALED TOGGLE SWITCH

MIL-S-3950. Improved teeter-totter mechanism provides positive "feel" and reliable return action. Silver contacts for long-life. Anodized aluminum bushing and cover; molded melamine/phenolic base. Environmentally sealed according to MIL-S-3950 standards. *Momentary contact. Double pole. Wt. 2 oz.

Stock No.	Mfr's Type	Gov't MS No.	Lever Travel	EACH 1-9	10-19	20-49	50-Up
757-7441	8501K1	24524-21	On-Off-On	12.97	8.19	7.28	6.37
757-7449	8501K9	24524-22	On-None-Off	12.97	8.19	7.28	6.37
757-7444	8501K4	24524-23	On-None-On	12.97	8.19	7.28	6.37
757-7442	8501K2	24524-27	On*-Off-On*	12.97	8.19	7.28	6.37

SWITCH AND PANEL SEALS
Military types perform three functions: provide vibration resistance for mounting nut; seal mounting hole; seal switch lever to 15 psi. Commercial type AN1111-14 is black neoprene. MIL-B-5423/*. Wt. 1 oz.

Stock No.	Mfr's Type SWI-	Threads	* Type & Style	EACH 1-24	25-99	100-Up
757R1010	AN1030	15/32-32	1 A1	1.70	1.04	.85
757-1050	BN1030	15/32-32	2 A3	1.70	1.04	.85
757-1028	AN3030	15/32-32 1/16	7 B21	1.55	1.03	.78
757-1063	NC3030	15/32-32 1/16	7 B22	1.55	1.03	.78
757-1035	AN9030-14	3/8-32	9 C2	1.40	.92	.72
757-1014	AN1111-4	15/32-32	Comm.	1.08	.90	.36

ONE-HOLE MOUNTING SWITCH GUARDS

Prevents accidental operation of toggle switches. **8492K1 (MS24417-1):** With pin in place, toggle will operate in left and center, but not extreme right pos. Metal. Black. **8497K1 (MS-25224-1):** Always in Off pos. when guard is down; can only go to On pos. when guard is up. Phenolic. Red. 2 oz.

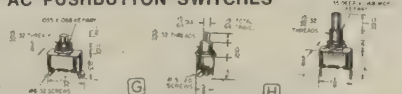
Stock No.	Mfr's Type	EACH 1-24	25-49	50-99	100-Up
757-7182	8492K1	1.55	1.20	1.00	.80
757-7187	8497K1	2.87	2.22	1.85	1.48

MULTI-PURPOSE PUSHBUTTON SWITCHES—AC OR AC-DC RATED

AC-DC PUSHBUTTON SWITCHES

AC-DC switches have quick-make, quick-break design. AC types have slow-break momentary contact design. Mounting hardware is supplied unassembled.

AC PUSHBUTTON SWITCHES



SINGLE POLE—MOMENTARY—NORMALLY OPEN

Stock No.	Mfr's Type	Fig.	Rating @ 125V	Rating @ 250V	Button Color	Terminals	EACH 1-24	25-49	50-99	100-Up
757-2305	8411K11	A	3/4A	1/4A	Black	Spade	.75	.58	.48	.43
757-2309	8411K12	A	3/4A	1/4A	Black	Screw	.88	.68	.57	.51
757-2311	8411K13	A	3/4A	1/4A	Red	Spade	.75	.58	.48	.43
757-2325	7196K1	B	6A	3A	Nickel	Screw	2.42	1.87	1.56	1.40

SINGLE POLE—MOMENTARY—NORMALLY CLOSED

Stock No.	Mfr's Type	Fig.	Rating @ 125V	Rating @ 250V	Button Color	Terminals	EACH 1-24	25-49	50-99	100-Up
757-2337	8411K7	A	3/4A	1/4A	Black	Screw	.88	.68	.57	.51
757-2340	8411K8	A	3/4A	1/4A	Black	S Lug	.74	.58	.48	.43

DOUBLE POLE DOUBLE THROW—MOMENTARY

Stock No.	Mfr's Type	Fig.	Rating @ 125V	Rating @ 250V	Button Color	Terminals	EACH 1-24	25-49	50-99	100-Up
757-2359	7199K2	C	6A	3A	Nickel	S. Lug	3.93	3.04	2.54	2.28

AC rated pushbutton switches feature slow-make, slow-break momentary contact mechanism. Bright nickel plated button. 15/32" diameter bushing. Mounting hardware is supplied unassembled.

SINGLE POLE—NORMALLY OPEN

Stock No.	Mfr's Type	Fig.	Rating @ 125V	Rating @ 250V	Rating @ 125/250V	Terminals	EACH 1-24	25-49	50-99	100-Up
757-2364	8440K2	D	3A	.....	.....	S Lug	1.53	1.18	.99	.87
757-2363	8440K3	E	3A	.....	.....	Screw	1.76	1.36	1.14	1.02
757-2369	8442K4	G	6A	3A	.....	Screw	1.67	1.30	1.08	.97
757-2373	8444K4	G	15A	10A	1/2 hp	Screw	1.81	1.40	1.17	1.05

DOUBLE POLE—NORMALLY OPEN

Stock No.	Mfr's Type	Fig.	Rating @ 125V	Rating @ 250V	Rating @ 125/250V	Terminals	EACH 1-24	25-49	50-99	100-Up
753-2383	8448K2	H	15A	10A	.....	Screw	2.59	2.00	1.67	1.50

Alec Electron

Illuminated & Pushbutton Switches

ULTRAMINIATURE PUSHBUTTON SWITCHES

ULTRAMINIATURE PUSHBUTTON SWITCHES WITH GOLD PLATED TERMINALS

*N.O. rated .750 amp at 125 VAC; †N.C. contacts, 0.50 amp at 125 VAC. Gold plated contacts. Life, 50,000 operations min. **Screw-on cap for switch must be ordered separately on following page (.250″).**

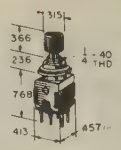
Stock No.	Mfr's Type (SAI)	Button	EACH 1-9	10-24	25-99	100-Up
757-0040	RV20*	Red	1.21	1.15	.77	.69
757-0020	BV20*	Black	1.21	1.15	.77	.69
757-0042	RW20†	Red	1.21	1.15	.77	.69
757-0041	BW20†	Black	1.21	1.15	.77	.69

ULTRAMINIATURE PUSHBUTTON SWITCHES WITH SOLDER LUG TERMINALS

Rated 3A @ 125 VAC. ¼-40 bshg. Half behind-panel size of miniature switches. Action: (*)momentary; (†)push-push. **Screw-on cap for switch must be ordered separately (.315″ or .395″ on following page).**

Stock No.	Mfr's Type (SA)	EACH 1-9	10-24	25-99	100-Up
ONE POLE					
757-0160	31SDT1*	2.42	2.32	1.55	1.39
757-0161	31SET1†	2.42	2.32	1.55	1.39
TWO POLE					
757-0162	32SDT1*	3.38	3.22	2.16	1.93
757-0163	32SET1†	3.38	3.22	2.16	1.93

ULTRAMINIATURE PUSHBUTTON SWITCHES WITH PRINTED CIRCUIT TERMINALS

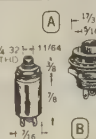


3A @ 125 VAC. ¼-40 bshg. Action: (*)momentary; (†)push-push. **Order screw-on cap on following page (.315″ or .395″).**

Stock No.	Mfr's Type (SA)	EACH 1-9	10-24	25-99	100-Up
ONE POLE					
757-0164	31SDT6*	2.55	2.42	1.62	1.45
757-0165	31SET6†	2.55	2.42	1.62	1.45
TWO POLE					
757-0166	32SDT6*	3.60	3.42	2.29	2.05
757-0167	32SET6†	3.60	3.42	2.29	2.05

"BUTTON SWITCHES"

Small SPDT momentary-action switches. Types 903 and 913 (A) for behind-panel mounting in panels up to 19/64″ thick. Types 923 and 933 (B) mount in front of panels up to 5/32″ thick. All rated 250 mA, 30 watts maximum, AC noninductive. Contact Form, 1-C. Provides single "A" (make), single "B" (break) or "C" (break-make) circuit by connecting terminals in various ways. Wt. 3 oz.



Red Button Stock No.	Mfr's Type	Black Button Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
933R6203	903	933-6213	913	1.70	1.14	1.05	.95
933-6223	923	933-6233	933	1.60	1.20	1.10	1.00

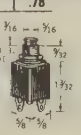
PUSHBUTTON "TINY SWITCHES"

Nickel-plated brass frame, bushing. Requires 5/16″ depth in panels up to 3/32″ thick. Low-level currents only. Type 951 has single "make" circuit (1-A); 953 one "break-make" (1-C). Wt. 3 oz.

Stock No.	Mfr's Type	Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
933-6251	951	.....	....	1.13	.75	.69	.63
933-6253	953	933-6263	963	1.40	.93	.85	.78

"HI-D" PUSHBUTTON SWITCHES

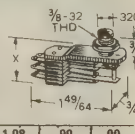
High-density switches. 1-pc. pushbutton, shaft. Rated at 1 amp, 100 watts max., AC noninductive load. Button color; *red, †black. Mount in 3/8″ hole in panels up to 5/32″ behind panel. Wt. 3 oz.



Stock No.	Mfr's Type	Action	Contacts	EACH 1-9	10-24	25-49	50-Up
933-1451	*H-101	SPST	1-A	1.30	.87	.80	.73
933-1453	*H-103	SPDT	1-C	1.48	.99	.91	.83
933-1481	†H-201	SPST	1-A	1.30	.87	.80	.73
933-1483	†H-203	SPDT	1-C	1.48	.99	.91	.83

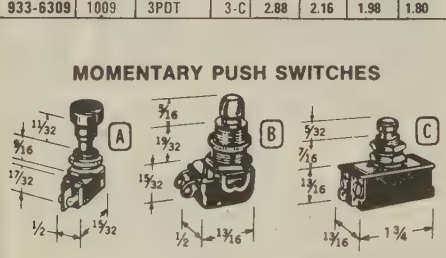
"FF" PUSHBUTTON SWITCHES

Flat-frame switches provide simple, direct-acting momentary pushbutton contact. Fine-silver contacts rated 3 amps, 300 watts max., AC noninductive. 1-pc. black button and shaft. Wt. 3 oz.



Stock No.	Mfr's Type	Action	Contacts	EACH 1-9	10-24	25-49	50-Up
933-6301	1001	SPST n.o.	1-A	1.63	1.08	.99	.90
933-6303	1003	SPDT	1-C	1.75	1.17	1.07	.98
933-6304	1004	DPST n.o.	2-A	1.90	1.26	1.16	1.05
933-6306	1006	DPDT	2-C	2.25	1.50	1.38	1.25
933-6309	1009	3PDT	3-C	2.88	2.16	1.98	1.80

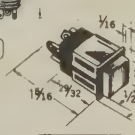
MOMENTARY PUSH SWITCHES



Wide selection of popular momentary push switches for commercial and industrial applications. AC only except Mfr's Type Number 80630 which is AC-DC. ‡ indicates midget size, constructed of molded phenolic; ♀ canopy size, phenolic sections. Rated 3 amps at 125 VAC, 1/10 hp at 125 volts, except § 8 amps at 250 volts, 16 amps at 125 volts, 1 hp; † 1 amp at 125 volts, AC-DC. All types listed have 15/32″ diameter shanks. U.L. Recognized. Av. shpg. wt. 3 oz. each.

Stock No.	Mfr's Type	Fig.	Action	Button Color	EACH 1-24	25-99	100-Up
717R0210	*3391-GL	A†	SPST-N.O.	Black	2.65	2.12	1.33
717R0215	*3391-GL	A†	SPST-N.O.	Red	2.65	2.12	1.33
717-0203	*3391-GJ	A†	SPST-N.C.	Red	2.65	2.12	1.33
717-0206	*3391-GJ	A†	SPST-N.C.	Black	2.65	2.12	1.33
717-0220	*3392	A†	SP2-N.C.	Nickel	2.60	2.08	1.30
717-0225	*3392-AE	A†	SP2-N.C.	Black	3.21	2.57	1.61
717-0230	*3392-AE	A†	SP2-N.C.	Red	3.21	2.57	1.61
717-0420	‡80511	B	SPST-N.C.	Nickel	1.06	.85	.53
717R0421	‡80511-E	B	SPST-N.O.	Nickel	1.06	.85	.53
717-0430	‡80541-R	B	SPST-N.C.	Red	2.00	1.60	1.00
717-0426	‡80541-ER	B	SPST-N.O.	Red	2.00	1.60	1.00
717-0450	80630	C§	DPST-N.O.	Nickel	4.21	3.37	2.11

LIGHTED/NON-LIGHTED "UNISWITCH"

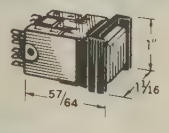


Low-cost momentary action pushbutton switches. *Illuminated (solder lug light terminal—takes P-2290 lamp) or †non-illuminated. 11/16″ square-mount in single panel cutout from panel front; 1¾ to 1 15/64″ behind panel. Snap-lock installation in panels ¾-1 7/64″ thick. 250 mA, .30 W max., AC noninductive, SPST-N.O. contacts. White. Lamp is 6 V Bi-Pin. Wt. 2 oz.

Stock No.	Mfr's Type	Contacts	EACH 1-9	10-24	25-49	50-Up
933-2301	*LUS-05-01	1A	1.68	1.26	1.16	1.05
933-4150	†US-05-01	1A	1.45	.96	.88	.80
933-3235	P-2290	Lamp	1.68	1.11	1.02	.93

PL PUSH-LIGHT SWITCHES

Reliable leaf-spring switching. Rated 2A, 200W max.; AC noninductive load. Mount with clamp-type bracket; no hardware needed. Flange mtg. requires 1″ x .875″ panel cutout; 1¾″ behind panel. Accepts T-1¾ flange base lamp (not incl.) in 6V, 28V or neon 115V.



MOUNTING BARRIERS (BLACK)

Stock No.	Mfr's Type	Description	EACH 1-9	10-24	25-49	50-Up
933-3155	PL-102	End Barrier	.13	.09	.083	.075
933-3160	PL-202	Center Barrier	.13	.09	.083	.075

MOMENTARY ACTION—SINGLE LAMP

Stock No.	Mfr's Type	Contacts	EACH 1-9	10-24	25-49	50-Up
933-3173	PL-1062-05	2-C	9.85	6.57	6.03	5.48

PUSH-LOCK/PUSH-RELEASE—SINGLE LAMP

Stock No.	Mfr's Type	Contacts	EACH 1-9	10-24	25-49	50-Up
933-3175	PL-1067-05	2-C	10.40	6.93	6.35	5.78

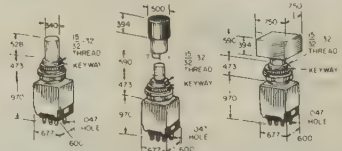
PUSH-LOCK/PUSH-RELEASE—TWIN LAMP

Stock No.	Mfr's Type	Contacts	EACH 1-9	10-24	25-49	50-Up
933-3194	PL-2067-05	2-C	11.43	7.62	6.99	6.35

LIGHT DIVIDER

Stock No.	Mfr's Type		EACH 1-9	10-24	25-49	50-Up
933-3162	PL-551	.....	.10	.07	.06	.05

ILLUMINATED PUSHBUTTTON SWITCHES



Two pole, double throw contact mechanism and electrically independent lamp circuit, with separate terminals. Bulbs are replaceable from front of panel. Silver plated current carrying parts; solder lug terminals. Rated 5 amps at 125 VAC and 28 VDC. Switch must be sub-panel mounted by 15/32″ bushing (mounting hardware included). Less Bulb. Av. wt. 2 oz.

BASIC SWITCH

Cap must be ordered separately, below.

Stock No.	Mfr's Type	Circuit	EACH 1-24	25-99	100-499	500-Up
757-8200	SB1DDX69	Momentary	4.27	2.72	2.44	2.04
757-8201	SB1DEX69	Push On-Push Off	4.27	2.72	2.44	2.04

¾″ SQUARE OPERATOR CAPS

Stock No.	Mfr's Type	Color	EACH 1-24	25-99	100-499	500-Up
757-8226	SW53AA45	Red	.28	.17	.15	.13
757-8227	SW53AA46	Green	.28	.17	.15	.13
757-8228	SW53AA47	Amber	.28	.17	.15	.13

½″ ROUND OPERATOR CAPS

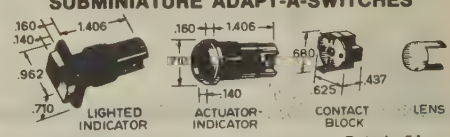
Stock No.	Mfr's Type	Color	EACH 1-24	25-99	100-499	500-Up
757-8236	SW53AA49	Red	.28	.17	.15	.13
757-8237	SW53AA50	Green	.28	.17	.15	.13

BXR BOX SWITCHES

Pushbutton switches with up to 4-poles mount in .615″ sq. hole from front of panel. Rated 250 mA, 30W max. AC noninductive. Snap-in mtg. Wt. 8 oz.

Stock No.	Type BXR	Cont. Ass'y.	Color	EACH 1-9	10-24	25-49	50-Up
933-0235	-05-6	2-C	White	3.93	2.61	2.39	2.18
933-0236	-02-6	2-C	Black	3.93	2.61	2.39	2.18
933-0237	-01-6	2-C	Red	3.93	2.61	2.39	2.18

SUBMINIATURE ADAPT-A-SWITCHES



For business machines and computers. Rated: 5A, 125VAC; 2A, 250 VAC, 5A, 28VDC, 10 mA minimum for dry circuit, 50 mV. Use T-1¾ style bulb. Shpg. wt. ¼ oz.

RECTANGULAR ACTUATOR INDICATORS

Stock No.	Mfr's Type	Description of Action	EACH 1-9	10-24	25-99	100-Up
717-1080	83501	Rec. Momentary	2.31	1.85	1.23	1.16
717-1083	83504	Rec. Alternate	3.63	2.90	1.94	1.82
717-1081	83502	Square Momentary	2.31	1.85	1.23	1.16
717-1084	83505	Square Alternate	3.63	2.90	1.94	1.82
717-1082	83503	Round Momentary	2.31	1.85	1.23	1.16

LENSES FOR ABOVE INDICATORS

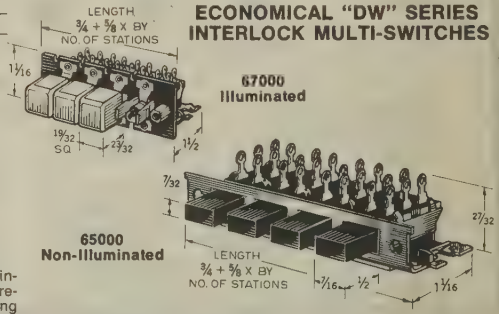
Stock No.	Mfr's Type	Description
717-1050	83500-70	Rect. white
717-1051	83500-71	Rect. red
717-1052	83500-72	Rect. green
717-1054	83500-74	Rect. yellow
717-1055	83500-75	Rect. amber
717-1060	83500-80	Sq. white

1-9 ea. .33 10-24 ea. .26
25-99 ea. .18 100-up ea. .17

Contact Blocks
Stock No. 717-0030
Mfr's Type 83500-30
Desp. Std. Duty
1-9 ea. 2.48
10-24 ea. 1.65
25-up ea. 1.32

Snap-on Clip to Convert Any Actuator to Indicator
Stock. No. 717-1039
Mfr's Type 83500-51
1-9 ea. .33
10-24 ea. .26
25-up ea. .18

ECONOMICAL "DW" SERIES INTERLOCK MULTI-SWITCHES



SERIES 65000. Economical factory assembled multi-switch. Non-illuminated. With DPDT switch module per station. Double wipe bifurcated silver-plated brass contacts are rated 3 amps AC, 0.5 amps DC; 125 volts non-inductive load. Size, 1 1/16″ depth behind panel; ¾″ length plus ⅝″ for each station; 27/32″ high. Shpg. wt. 4 oz.

SERIES 67000. Factory assembled, illuminated version of Series 65000. Features front-of-panel lamp replacement for added convenience. Accepts Industrial Type 327 and 328 lamps (not included). See lamp section of this catalog. Av. shpg. wt. 4 oz.

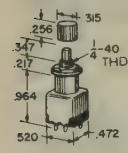
Stock No.	Mfr's Type	Stations	EACH 1-9	10-24	25-49	50-Up
933R9260	65041K-206	4	4.95	3.30	3.03	2.75
933-9271	65061K-206	6	7.10	4.74	4.35	3.95
933-9281	65081K-206	8	9.28	6.18	5.67	5.15
933-9291	65101K-206	10	11.48	7.65	6.01	6.38
933-9324	67041K-506	4	6.65	4.44	4.07	3.70
933-9341	67061K-506	6	9.63	6.42	5.89	5.35
933-9351	67081K-506	8	14.00	8.40	7.70	7.00

Pushbutton, Rocker & Slide Switches

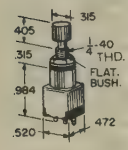
MINIATURE PUSHBUTTON SWITCHES

STANDARD MINIATURE PUSHBUTTON SWITCHES

Rated 5 A @ 125 VAC. ¼-40 bushing. Solder lug terminals. *Momentary, †Push-Push. **Order .315" or .395" cap separately below.**



Stock No.	Mfr's Type	EACH 1-9	10-24	25-99	100-Up
ONE POLE					
757-0104	SA21SDX1*	2.43	1.97	1.55	1.39
757-0105	SA21SEX1†	2.43	1.97	1.55	1.39
TWO POLE					
757-0122	SA22SDX1*	3.38	2.74	2.16	1.93
757-0123	SA22SEX1†	3.38	2.74	2.16	1.93
FOUR POLE					
757-0148	SA24SDX1*	5.63	4.55	3.58	3.21



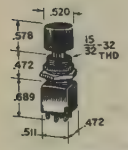
WATERTIGHT MINIATURE PUSHBUTTON SWITCH

Sealed to withstand a 3.3 ft. head of water for 15 minutes. Rated 5 A @ 125 VAC. *Momentary. Solder lugs. **Order .315" or .395" cap.**

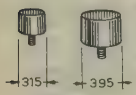
Stock No.	Mfr's Type	EACH 1-9	10-24	25-99	100-Up
ONE POLE					
757-0114	SA21WDX1*	2.75	2.23	1.76	1.57

LARGE BUSHING PUSHBUTTON SWITCH

Rated 5 A @ 125 VAC. 15/32-32 bshg. Solder lugs. *Momentary, †Push-Push. **Order .520" screw-on cap below.**



Stock No.	Mfr's Type	EACH 1-9	10-24	25-99	100-Up
ONE POLE					
757-0100	SA21GDX1*	2.72	2.21	1.74	1.56
757-0101	SA21GEX1†	2.72	2.21	1.74	1.56
TWO POLE					
757-0102	SA22GDX1*	3.68	2.98	2.35	2.10
757-0103	SA22GEX1†	3.68	2.98	2.35	2.10



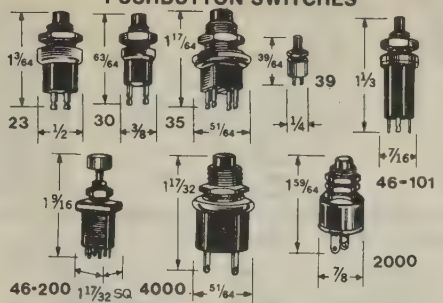
SELECT SCREW-ON CAPS HERE FOR PUSHBUTTON SWITCHES

.315" and .395" caps are for ultraminiature, standard and watertight miniature pushbutton switches; .520" cap is for large bushing switches only.

Color	.315" Dia. Stock No.	.315" Dia. Type SW53-	.395" Dia. Stock No.	.395" Dia. Type SW53-	.520" Dia. Stock No.	.520" Dia. Type SW53-
White	757-1121	AA21	757-1171	AA71	757-1181	AA81
Red	757-1122	AA22	757-1172	AA72	757-1182	AA82
Black	757-1123	AA23	757-1173	AA73	757-1183	AA83
Blue	757-1124	AA24	757-1174	AA74	.....	....
Yellow	757-1125	AA25	.....	....	.....	....
Green	757-1126	AA26	757-1176	AA76	757-1186	AA86

.315" Dia. and .395" Dia. Caps ..... **Each .10**
.520" Dia. Caps ..... **Each .15**

PUSHBUTTON SWITCHES



Rugged, momentary contact, pushbutton switches with solder-lug type terminals. For on/off applications, computer equipment, printed circuit panels. Normally open types (indicated by N.O. in table) have red buttons. Normally closed types (indicated by N.C. in table) have black buttons. In Series 2000 and Series 46, "R" after Mfr's Type No. indicates red button, "B" black button. 2 oz.

Series 23. Miniature, over 500,000 operations. Contact resistance, 10 milliohms. Mounting hole, 21/64".

Stock No.	Mfr's Type	Action	Amps @115 VAC	Size L x Dia.	EACH 1-24	25-49	50-Up
801-0501	23-1	SPST N.O.	1/4	13/64X1/2	2.18	1.45	1.23

Series 30. Subminiature, over 1 million operations. Contact resistance, 10 milliohms. Mounting hole, 17/64".

Stock No.	Mfr's Type	Action	Amps @115 VAC	Size L x Dia.	EACH 1-24	25-49	50-Up
801-0701	30-1	SPST N.O.	1	63/64X3/8	1.58	1.05	.89
801-0702	30-2	SPST N.C.	1	63/64X3/8	1.58	1.05	.89

Series 35. Miniature, over 100,000 oper. Mtg. hole, 31/64".

801-0735	35-1	DPST N.O.	1/2	117/64X51/64	2.63	1.75	1.49

Series 39. Ultraminiature, over 1 million operations. But. contact. Mounting hole, 11/64".

801-0750	39-1	SPST N.O.	1/2	39/64X1/4	2.03	1.35	1.15

Series 46. Miniature, 250,000 oper. †Break-before-make. Mtg. hole, 17/64".

801-1515	46-101R	SPDT†	1/4	11/32X7/16	2.40	1.60	1.36
801-1510	46-101B	SPDT†	1/4	11/32X7/16	2.40	1.60	1.36
801-1550	46-200B	DPDT†	1/4	19/16X17/32	5.10	3.40	2.89

Series 2000. Snap-Action, 25,000 oper. Mtg. hole, 31/64".

801-2201	2201	SPST N.O.	10	159/64X7/8	5.10	3.40	2.89
801-2202	2202	SPST N.C.	10	159/64X7/8	5.10	3.40	2.89

Series 4000. Silent-Action, 100,000 oper. Mtg. hole, 31/64".

801-2251	4001	SPST N.O.	1	117/32X51/64	1.88	1.25	1.06

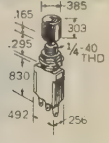
Button Guard. For Series 2000, 4000, 35. Cadmium-plated.

801-0315	7C1040	Decorative mtg. nut	.45	.30	.25

PUSHBUTTON SWITCHES

MSP SERIES

Rated 6 A at 125 VAC or 28 VDC except MSP-103, 3 A at 125 VAC. Life: over 25,000 actions. Black button. Maximum overall size: .492"W x .453"D x 1.581"H (MSP-103, .472" dia. x 1.023").



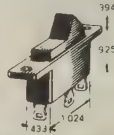
Stock No.	Type MSP-	Action	EACH 1-24	25-49	50-99	100-Up
700-5220	103B	SPST N.C.	1.15	.86	.78	.72
700-5237	105F	SPDT Momentary	2.75	2.06	1.87	1.73
700-5255	205R	DPDT Momentary	3.65	2.74	2.48	2.30

MPE SERIES WATERPROOF

Rated 6 amps resistive, 2 amps inductive at 125 VAC. Double "O" waterseals and low-loss "E" Series case; turret terminals. Black button.

700-5312	E-106F	SPDT Momentary	3.28	2.29	2.07	1.92
700-5334	E-206R	DPDT Momentary	4.25	2.96	2.69	2.49
700-5362	E-406R	4PDT Momentary	6.73	4.69	4.25	3.94

HSL SERIES ROCKER SWITCH



High current capacity and long life in a ½" wide case. Fully insulated 1-pc. unit; moisture, heat-resistant. Rated 10 A at 125 VAC, 6 A at 250 VAC. Life: over 100,000 operations. Tab term. accept .187 fast-on connectors or solder connection. Black.

Stock No.	Mfr's Type	Action	EACH 1-24	25-49	50-99	100-Up
700-2110	HSL-110A	SPST On-Off	1.15	.86	.78	.72
700-2113	HSL-110D	SPDT On-Off	1.25	.94	.85	.79

DIMENSIONS, Inches Type	A	B	C
SPDT	.260	.350	.505
DPDT	.450	.410	.505

MR1 SERIES ROCKER SWITCHES

Rated 5 amps nominal (resistive) at 125 VAC and 24 VDC; 3 amps at 250 VAC. Initial contact resistance; 5 milliohms max., 3 VDC, 100 mA. Insulation resistance; 20,000 megohms minimum for diallyl phthalate bodies. Dielectric strength; 1000 volts rms at sea level. Life under load: 100,000 make-and-break cycles for suffix 123 types; 60,000 for others. Silver contacts and rockers. Silver plated brass center terminals. Molded black nylon. *Momentary position.

Stock No.	Mfr's Type MR1-	Circuit	Action	EACH 1-9	10-29	30-99	100-Up
826-1200	121	SPDT	On-Off-On	2.40	1.87	1.73	1.51
826-1201	123	SPDT	On-None-On	2.10	1.64	1.52	1.32
826-1205	221	DPDT	On-Off-On	3.05	2.33	2.15	1.87
826-1206	223	DPDT	On-None-On	2.65	2.03	1.87	1.64
826-1207	226	DPDT	On-None-On*	3.05	2.33	2.15	1.87
826-1208	227	DPDT	On*-Off-On*	3.20	2.45	2.26	1.97

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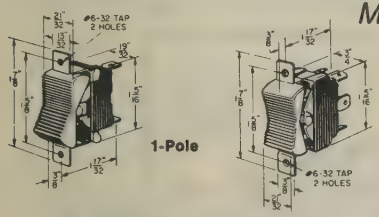
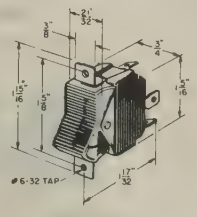
Alec Electron Says – High Quality is Manufactured into Allied's Switches



ROCKETTE SWITCH

Slow-make and break contact mechanism, with white serrated rocker. Quick-connect spade terminals are .250" wide. U.L./C.S.A. listed. †817K10E121T52. Identical to standard Rockette, but with an integral light unit behind the rocker. On-off-on circuit; red rocker; 110 VAC neon bulb. Wt. 2 oz.



Illuminated

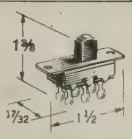
SINGLE POLE

Stock No.	Mfr's Type	Circuit	Amps @ 125 V	Amps @ 250 V	Terminals	EACH 1-24	25-49	50-99	100-Up
757-6176	8144K21A1M50	On-Off	15	10	Screw	1.26	.97	.81	.73
757-6178	8144K21A1M52	On-Off	15	10	Spade	1.16	.90	.75	.68
757-6175	8144K20A1M52	On-Off-On	15	10	Spade	1.31	1.01	.85	.76
757-6190	8146K20A1M52	On*-Off-On*	15	10	Spade	1.54	1.19	1.00	.90
757-6210	8175K10E121T52	†On-Off-On	15	10	Spade	2.91	2.25	1.88	1.69
DOUBLE POLE									
757-6153	8142K21E6M50	On-Off	15	10	Screw	1.98	1.53	1.28	1.15
757-6154	8142K21E6M52	On-Off	15	10	Spade	1.79	1.39	1.16	1.04
757-6152	8142K20E6M52	On-Off-On	15	10	Spade	2.18	1.69	1.41	1.27
757-6155	8142K22E6M52	On-On	15	10	Spade	2.18	1.69	1.41	1.21
757-6198	8148K20E6M52	On*-Off-On*	15	10	Spade	2.55	1.97	1.65	1.48

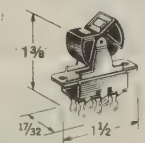
†indicates red-illuminated model. *indicates momentary contact.

PHASE II SLIDE SWITCHES

Wide variety of On-Off and function indication uses. Double-wipe action prevents oxidation, ensures good electrical contact. Positive-action detent tab holds slide at position. Terminals: Silver-plated brass. Contacts: silver-plated brass alloy. 1 3/8" long, 17/32" wide, 1 1/2" mounting centers. Rated 0.5 amp DC; 3 amps AC, 125 volts noninductive load. 4 oz.



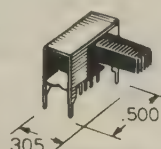
Slide



Rocker

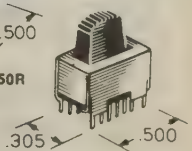
TWO-POSITION SLIDE SWITCHES

Stock No.	Mfr's Type	Action	EACH 1-24	25-49	50-99	100-Up
933-9103	46202LR	SPST N.C. Locking	.45	.41	.38	.30
933-9105	46203LR	SPDT Locking	.48	.44	.40	.32
933-9106	46203MR	SPDT Momentary	.90	.55	.50	.40
933-9107	46204LR	DPST Locking	.73	.44	.40	.32
933-9111	46206LR	DPDT Locking	.42	.39	.35	.28
933-9112	46206MR	DPDT Momentary	1.03	.63	.56	.46
933-9120	46256LFR	DPDT Locking	.57	.52	.48	.38
933-9134	46313LDR	DPTT Lock/Lock	.72	.66	.60	.48
TWO-POSITION ROCKER SWITCHES						
933-9187	51206LR	DPDT Locking	1.18	.72	.65	.52



MSS-2250R

Alec Electron



MSS-4200

MINIATURE PC SLIDE SWITCHES

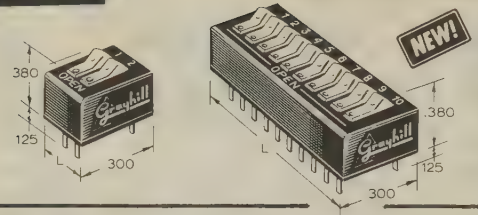
Models with suffix "R" have right angle mtg. terminals. Contacts, silver or (*) gold plated (2 microns). Rated .3A @ 125 VAC. Type MSS-22 has anti-tease design; rated 2A @ 120 VAC. Gold on nickel on silver plated brass contacts. Long life: over 250,000 operations. Low resistance; positive wiping action. .500 x .305". Wt. 4 oz.

Stock No.	Type MSS-	Action	EACH 1-24	25-99	100-499	500-999
700-5721	1200RG*	SPDT Right Angle	.95	.65	.54	.48
700-5727	2200	DPDT Upright	.70	.48	.42	.35
700-5734	2250R	DPDT Long Handle	.85	.58	.51	.43
700-5742	4200	4PDT Upright	.80	.54	.48	.40
700-5701	22	SPDT 2-circuit	1.90	1.27	.95	.80
700-5710	44	DPDT O-N-O w/Tabs	3.25	2.18	1.63	1.37

MSS-22

Rocker, Thumbwheel & Foot Switches

MINIATURE ROCKER DIP SWITCHES



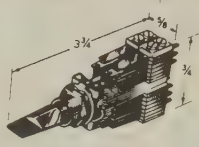
Dual in-line single pole/single throw package switch for easy PC board mounting. Spring loaded sliding ball contact system for positive contact, tease-proof reliability, wiping contact, high shock and vibration resistance. Life: 50,000 operations. Compact, low .305" above board height.

W/O STANDOFFS Stock No.	Mfr's Type	W/STANDOFFS Stock No.	Mfr's Type	No. of Rockers	Lgth.	EACH 1-9	10-24	25-49	50-Up
801-7600	76A02	801-7605	76B02	2	0.280	3.98	2.44	2.23	2.09
801-7610	76A03	801-7615	76B03	3	0.380	4.28	2.62	2.39	2.25
801-7620	76A04	801-7625	76B04	4	0.480	4.58	2.81	2.56	2.41
801-7630	76A05	801-7635	76B05	5	0.580	4.88	2.99	2.73	2.57
801-7640	76A06	801-7645	76B06	6	0.680	5.25	3.22	2.94	2.77
801-7650	76A07	801-7655	76B07	7	0.780	5.55	3.40	3.11	2.92
801-7660	76A08	801-7665	76B08	8	0.880	5.85	3.59	3.28	3.08
801-7670	76A09	801-7675	76B09	9	0.980	6.15	3.77	3.44	3.24
801-7680	76A10	801-7685	76B10	10	1.080	6.45	3.96	3.61	3.40

LEVER TYPE SWITCHES

SERIES 41000 "LT"

Miniature telephone, locking type. 3A, 200W max., AC non-inductive. Nickel-silver springs. Detent guide. Mount in 13/32" hole; 2⅛" behind panel. *Positions 1 and 2 are identical contact assemblies. 1 lb.



TWO-POSITION SWITCHES

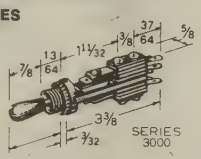
Mfr's Type	Stock No.	Contact	EACH 1-9	10-24	25-49	50-Up
41206L	933-8907	2-C	6.63	4.41	4.04	3.68
41212L	933-8920	4-C	8.95	5.97	5.47	4.98

THREE-POSITION SWITCHES

41312-L	933-8952	2-C*	8.95	5.97	5.47	4.98
41324-L	933-8970	4-C*	13.15	8.76	8.03	7.30

SERIES 3000 "LEV-R" SWITCHES

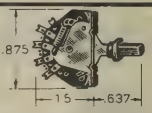
Require half the space normally needed for lever switches. Frame bushing and shaft of nickel-plated brass. Two-position type. Fine-silver contacts rated 3 A, 300 W max., AC non-inductive. Locking Type. ⅝" wide; requires 2 1/64" behind panel, 13/32" mtg. hole. With locknut and screw-on black knob. 13/64" mtg. bushing; mounts in panels up to 3/32" thick. 3 oz.



Mfr's Type	Stock No.	Action	Contact Form	EACH 1-9	10-24	25-49	50-Up
3001-L	933-6501	SPST	1-A	2.83	1.89	1.73	1.58
3003-L	933-6505	SPDT	1-C	3.43	2.28	2.09	1.90

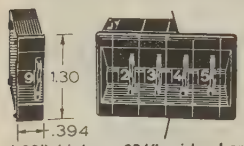
LOW-COST LEVER-ACTION PHENOLIC SWITCHES

Nylon rotor, silver-plated brass clips and contacts. 30° indexing. Breakdown of 1000 VAC rms. Contacts rated 1.5A @ 28 VDC; 230 mA @ 115 VAC rms. Contact resis.: .0035 ohm. Min. life, 25,000 cycles. Two 6-32 tapped holes on 1⅝" ctrs. Phenolic insul. * positive; † spring return; ‡ pos. and spring return. 4 oz.



Stock No.	Mfr's Type	Total Poles	No. of Pos.	Shorting	EACH 1-9	10-24	25-49	50-Up
747-1452	1452	2*	3	Yes	3.15	2.10	1.89	1.68
747-1454	1454	2*	3	No	3.15	2.10	1.89	1.68
747-1455	1455	2†	3	No	3.40	2.27	2.03	1.82
747-1467	1467	2‡	3	No	3.15	2.10	1.89	1.68

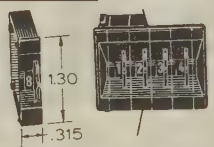
THUMBWHEEL SWITCHES



NEW!

TYPE H

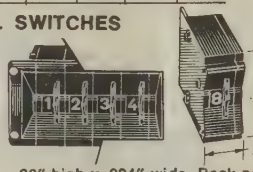
1.30" high x .394" wide. Large numeric readout. Easy, snap-in front-panel mounting. Eliminates mounting screws. 230 output codes to choose from. Up to 11 detent positions available. Unlimited options and accessories.



NEW!

TYPE M

1.30" high x .315" wide. Thinnest thumbwheel switch—only 5/16" wide. Easy, snap-in front-panel mounting. Eliminates mounting screws. 230 binary codes to choose from. Up to 11 detent positions available.



NEW!

TYPE P

.96" high x .394" wide. Back panel mounting. With optional spacer, retrofits existing designs for ½" wide housing (.96" (24mm) H x .50" (12.7mm) W). 230 output codes. Up to 11 detent positions available. Large numeric readout. Minimum panel area.

SPECIFICATIONS

Working Voltage: 0-50 VAC or VDC. Switching capacity: 0.1 amp at rated voltage. **Contact resistance:** 0.07 ohms maximum. **Insulation resistance:** 100K megohms minimum. **Dielectric strength:** 500 VAC rms at 25°C. **Housing:** ABS polymide plastic. **Circuit Board:** NEMA Grade FR-3. **Contact rotor:** precious metal alloy. **Contact stator:** .0003 Gold over Nickel. **Temperature range:** —40°C to +80°C. **Life:** Exceeds 1 million detent operations.

THUMBWHEEL SWITCHES

Stock No.	Type H	Stock No.	Type M	Stock No.	Type P	Description (All switches 10 position)	EACH PKG. OF 3 1-3	4-16	17-33	34-Up
657-0040	HB001	657-0150	MB001	657-0250	PB001	DPDT, Repeating (marked +, −)	18.45	17.10	15.15	13.65
657-0050	HB010	657-0160	MB010	657-0260	PB010	Decimal (one out of 10)	12.45	11.55	10.20	9.30
657-0060	HB020	657-0170	MB020	657-0270	PB020	Decimal (two out of 10)	14.70	13.65	12.15	10.95
657-0070	HB140	657-0180	MB140	657-0280	PB140	BCD plus complement, two commons	18.45	17.10	15.15	13.65
657-0080	HB701	657-0190	MB701	657-0290	PB701	SPDT, Repeating (marked +, −)	13.50	12.45	11.10	9.90
657-0090	HB731	657-0200	MB731	657-0300	PB731	BCD	12.45	11.55	10.20	9.30
657-0100	HB861	657-0210	MB861	657-0310	PB861	Complement only to BCD	12.45	11.55	10.20	9.30

ACCESSORIES

Stock No.	Type H	Stock No.	Type M	Stock No.	Type P	Description	EACH PKG. OF 10 1-4	5-9	10-Up
657-0020	HBW	657-0120	MBW	657-0220	PBW	End Plate (pair)	14.00	11.50	10.50
657-0010	HBV	657-0130	MBV	657-0230	PBV	Division Plates (pair)	14.00	11.50	10.50
657-0030	HBY	657-0140	MBY	657-0240	PBY	Spacer	12.50	10.50	9.60
657-0110	M2X	.....	.....	.....	.....	Rod with nut (two required, length over 6 inches)	12.00/Pkg. of 20		

- **Large Character Readout**
- **Featherweight Rotary Action**
- **Solder, P.C.B. Pin or Connector Termination**
- **Unlimited Codes, Options and Accessories**
- **Two Switches in One Minimum Panel Area (.395" Per Switch) With Spacer Retro Fits .500" Industry Standard Switches**

HOW TO DETERMINE ROD LENGTH

Type	Multiply No. of Switches By	and Add
H	10	10
M	8	8
P	10	8

RIBBON SWITCHES, MATS AND FOOT SWITCHES

Type CVP 1723 Flexible Area Switching Mat. Elements spaced on 2-3.4" centers. Water-resistant vinyl. "Mylar" insulation. Overlay with Masonite, carpeting or use exposed. Actuated by 5 lbs. pressure. 17x23x3/32" thick. For 24 V circuit. 1¾ lbs. **966X1010. Ea. 16.33 4-9 Ea. 12.38 10-Up Ea. 11.76**

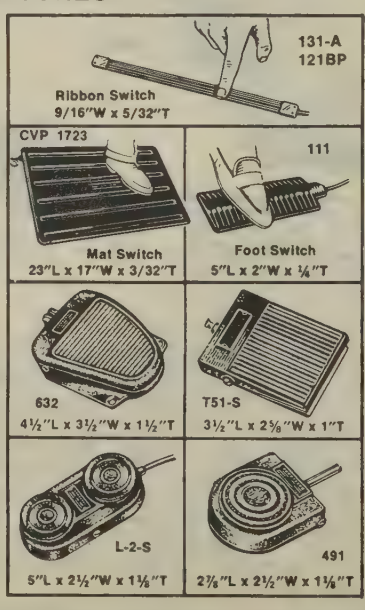
Type 131-A Controflex Wired Ribbon Switches. 40 oz. sens. Normally open, momentary contact. 1 A at 117 VAC/28 VDC. Ready to use. Sleeve terminals, 18" lead. ¾" wide, 3/16" thick. Gray.

Stock No.	Lgth. Ft.	Wt., Oz.	EACH 1-3	4-9	10-Up
966-1080	1	3	5.55	3.25	3.09
966-1081	2	4	7.68	4.46	4.24
966-1082	5	7	14.03	8.15	7.74

Type 111 100-Watt Foot Switch. Controflex ribbon switches (momentary, normally open) seated in weather-proof molded flat pad. 2x5x¼" thick; can be taped or cemented to floor. Comes complete with 6-foot U.L. approved cord. Wt. 8 oz. **966-1060. Ea. 7.30 4-9 Ea. 4.23 10-Up Ea. 4.02**

Type 121BP Sensitive Ribbon Switch. Same as at left, but 8-oz. pressure closes circuit. 1 A at 117 VAC/24 VDC. Sealed units have 18" leads. 3/16" wide, 5/32" thick. Green.

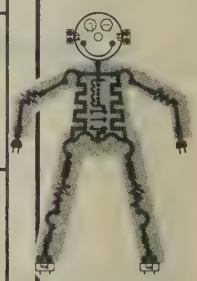
Stock No.	Lgth. Ft.	Wt., Oz.	EACH 1-3	4-9	10-Up
966-1070	1	3	5.55	3.25	3.09
966-1071	2	4	7.68	4.46	4.24



ALLIED FOOT SWITCHES FREE HANDS FOR WORK

Model 491-S "Compact." SPDT 10 ampere, 125-250 VAC contacts. Rugged steel housing. Black crackle finish. Rubber skidproof base.
Model 491-SC. Above. 6-ft. cord. 2-prong series plug. **491-SC3.** 8-ft. cord and ground plug.
Model 632-S. "Clipper." SPDT con. 20A, 125-150 VAC. Cast iron housing, rubber anti-skid pad.
Model T-51-S. "Treadite". For low-current loads.
T-51-SC. Wired. 6-ft. cord, 2-prong series plug. SPDT. 7 A. 110-250 VAC. Rubber skidproof pad.
T-51-SC3. Above, 6-ft. cord, grounded plug.
Model 632-D. Same as Model 632-S left, but maintains contact until again actuated.
Model L-2S "Lektro-Lok." Rated 15 A, 125 VAC contacts on each side mechanical interlock, steel housing. On-off switching from foot pressure.

Stock No.	Mfr's Type	Description	Size, Inch	Wt. Lbs.	EACH 1-9	10-19	20-Up
842R6658	T51-S	Momentary cont.	3½x2⅝x1	½	5.28	2.84	2.52
842-6659	T51-SC	Above, 6' cord	3½x2⅝x1	1	8.13	4.37	3.88
842-6660	T51-SC3	Above, 6' cord	3½x2⅝x1	1½	10.47	5.63	5.00
842R6680	491-S	Momentary cont.	2⅛x2¼x1⅛	½	6.53	3.51	3.12
842-6681	491-SC	Above, 6' cord	2⅛x2¼x1⅛	1¼	10.30	5.54	4.92
842-6682	491-SC3	Above, 8' cord	2⅛x2¼x1⅛	1½	12.73	6.84	6.08
842R6690	632-S	Momentary cont.	4½x3½x1½	2	14.66	7.88	7.00
842R6691	632-D	Maintains cont.	4½x3½x1½	2½	13.15	10.58	9.40
842-6634	L-2S	Two-way	5x2½x1⅛	1	10.89	5.85	5.20

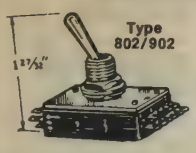


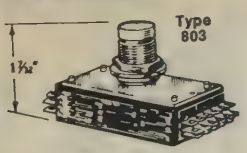
Alec Electron

Allied's Goal—Greater Per Unit Savings with Larger Quantity Buys

Special Application Switches

MULTI-POLE SWITCHES





Reliable high-density, multiple-pole, double-throw bat handle toggle and momentary pushbutton switches. Unique design permits more switching circuits in less space. Gold-bonded fine silver contacts provide many years of service. Rated 150 watts, 3 amps make-or-break non-inductive; 500 watts, 5 amps carry. Life: 50,000 cycles at 20 cpm. Dielectric strength: 1000 V rms at 60 cyl per section. Temperature range, −55° to +85° C. Operate and Release time: less than 30 milliseconds. All contacts are Form C. 802/902 Series is for general purpose use. 902 Series is for low level applications (under 1 amp); has bifurcated contacts with additional wiping action. Shpg. wt. 6 oz. **See page 141 for connectors and tools for these switches.**

SERIES 802 BAT-HANDLE TOGGLE SWITCHES

Stock No.	Mfr's Type	Action	EACH 1-9	10-24	25-49	50-Up
774-0130	802-8C	8PDT	18.00	17.28	16.45	15.60
774-0134	802-12C	12PDT	19.92	19.08	18.15	17.25
774-0138	802-24C	24PDT	38.96	37.32	35.40	33.60
774-0142	802-36C	36PDT	54.36	52.08	49.44	46.92

SERIES 902 BAT-HANDLE TOGGLE SWITCHES

774-0500	902-8C	8PDT	18.03	17.28	16.44	15.48
774-0501	902-12C	12PDT	19.92	19.08	18.12	17.16
774-0502	902-24C	24PDT	38.96	37.32	35.40	33.60
774-0503	902-36C	36PDT	54.36	52.08	49.44	46.92

SERIES 803 MOMENTARY PUSHBUTTON SWITCHES

774-0150	803-4C	4PDT	9.95	9.00	8.52	8.04
774-0152	803-8C	8PDT	12.60	12.00	11.40	10.80
774-0154	803-12C	12PDT	14.16	13.56	12.84	12.24

CORD PUSHBUTTON SWITCHES

E903

"CORDETTE" TYPE 921-K. Remote control switch. SPST switch circuit with 500-mA contacts: 50 watts max., AC non-inductive load. 6-ft gray 2-cond unshielded cable. Size: 1 3/16 wide, 2 5/16 long. Shpg. wt. 4 oz.

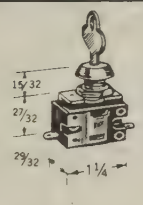
TYPE E903 CORD PUSHBUTTON SWITCH. Remote control switch. Hole at one end for 2-cond. line. Rated 250 mA non-inductive; 30 watts max. Contacts: 1-C. Red color. Wt. 4 oz

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-99	100-Up
933-6221	921-K	5.75	3.84	3.52	3.20	2.76
933R0823	E903	2.70	1.80	1.65	1.50	1.20

SPST LOCK SWITCHES

Type 81715-L. Fits panels to 9/32". Sleeve diameter, 15/32". Switch must be open to remove key. 1 3/4 x 27/32 x 2 1/32". **Type 81715-LE.** Same as above, but key is removable in open or closed position. Key included with both types. Extra keys below. 4 oz.

Stock No.	Mfr's Type	Amps @ 125V	Amps @ 250V	EACH 1-24	25-99	100-499	500-Up
717R0479	81715-L	6	3	4.37	3.50	2.19	1.75
717R0480	Extra key for above	..	..	.41	.33	.21	.16
717R0481	81715-LE	6	3	4.37	3.50	2.19	1.75
717R0482	Extra key for above	..	..	.41	.33	.21	.16



ADAPT-A-SWITCH KIT

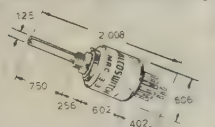
Everything you need to construct your own pushbutton switches. No special tools are necessary. Actuators are either momentary or alternate action to meet circuit requirements. You can build up to 4-pole momentary and 3-pole alternate action switches. Includes: 9 lenses (3 round, 3 square, 3 rectangular); two momentary actuator indicators; one alternate actuator; six contact blocks; one adapter. Durable case, 6 3/4 x 1 1/4 x 3 5/8". Shpg. wt. 5 oz.

717-1025 ..... Each 22.69

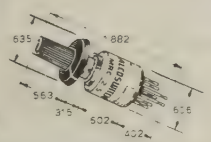
31 Components Build 25,344 Lighted Pushbutton Switches

NEW! MRC ADJUSTABLE STOP ROTARY SWITCHES

- **Choice of shaft styles**
- **1/8" diam. x .750" length**



- **Stopwashers facilitate implementation of stops**



Stock No.	Mfr. Type	No./ Poles	No./ Positions	EACH 1-24	25-49	50-99	100-249
700-4550	MRC-1-10S	1	2-10	6.65	4.99	4.52	4.19
700-4560	MRC-2-5S	2	2-5	6.95	5.21	4.73	4.38
700-4570	MRC-3-3S	3	2-3	7.25	5.44	4.93	4.57

Stock No.	Mfr. Type	No./ Poles	No./ Positions	EACH 1-24	25-49	50-99	100-249
700-4500	MRC-1-10	1	2-10	6.65	4.99	4.52	4.19
700-4510	MRC-2-5	2	2-5	6.95	5.21	4.73	4.38
700-4520	MRC-3-3	3	2-3	7.25	5.44	4.93	4.57

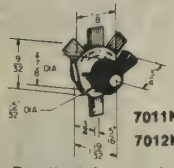
MRC ADJUSTABLE STOP ROTARY SWITCHES

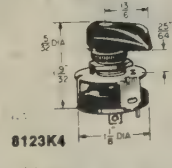
These switches feature adjustable stops to give the designer maximum flexibility in engineering circuits and control panels. Terminals are permanently molded into the diallyl phthalate base to prevent solder flux or other contaminants from seeping into the switching mechanism. All switches can be used for hand wired or printed circuits.

SPECIFICATIONS

Contact Rating: 500 max. @ 125 VAC or 28 VDC (resistive). **Contact Resistance:** 10 milliohms maximum @ 5V; lamp DC (initial). **Insulation Resistance:** 10^{10} ohms minimum, terminal-to-terminal, terminal-to-frame. **Dielectric Voltage Withstand:** 1,000V RMS, terminal-to-terminal, terminal-to-frame. **Life Expectancy:** 10,000 cycles minimum at full contact rating (resistive); 25 000 cycles minimum @ 125 V, 15 amps AC or 28V 25 amps DC (resistive). **Operating Force:** 14 inch-oz. maximum torque

ROTARY SWITCHES FOR ALL APPLIANCE APPLICATIONS

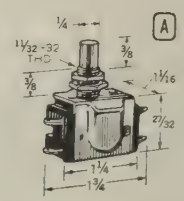


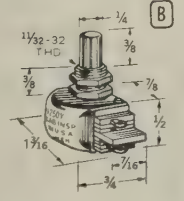


Excellent for use in air conditioners, fans, test equipment, control panels, instruments, other equipment. **Types 7011 and 7012** rated 5 A @ 125 V; 2 @ 250 V AC-DC; screw term. **Type 8123** rated 3 A @ 125 VAC; solder lug term. All have 3/8" threaded bushing. 4 oz.

Stock No.	Mfr's Type	Action	EACH 1-9	10-24	25-49	50-Up
757-3001	7011K1	2 on, 1 off	2.80	2.35	2.17	1.81
757-3010	7012K4	3 on, 1 off	2.95	2.48	2.29	1.91
757-6110	8123K4	3 on, 1 off	1.18	.99	.92	.77

SPST AND DPDT POWER SWITCHES

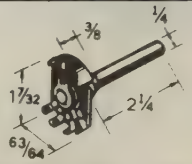




Ideal for control panels, these switches operate at −23° to 65°C. Dielectric strength exceeds 1000V RMS. Type 1561B is rated at 3 amps, 125V; 1 amp, 250V AC/DC. Type 81727 is rated at 6 amps, 125V; 1 amp, 125V AC/DC. Shanks 11/32" diam., 3/8" long with solder lugs. Wt. 2 ozs.

Stock No.	Mfr's Type	Fig.	Action	EACH 1-9	10-24	25-99	100-Up
717-0115	1561B	B	SPST	2.53	2.02	1.27	1.01
717-0484	81727	A	DPDT	4.99	3.99	2.50	2.00

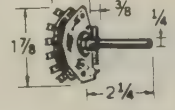
GENERAL-PURPOSE SWITCHES



Small, step-type switches rated 1.5 A @ 28 VDC; 230 mA @ 115 VAC. Shaft, 1/4" dia. x 2 1/4" long FMS. Non-shorting contacts, except *shorting. Mfr's Type 1472 is for use in FM-AM-phonos. Widely used in communications equipment. Wt. 5 oz.

Stock No.	Mfr's Type	Description	EACH 1-9	10-24	25-49	50-Up
747-1460	1460*	SPDT phono	1.83	1.22	1.09	.98
747-1461	1461*	SP 3-pos sel	1.93	1.28	1.15	1.03
747-1472	1472	DP-3-pos	2.13	1.42	1.27	1.14

GENERAL PURPOSE ROTARY



SERIES 3100J AND 3200J SINGLE-SECTION SWITCHES

Enclosed, low-voltage switches. For use in tone control, band selector and antenna switching circuits. Phenolic resin insulation. Have 3/8" threaded bushing 3/8" long. 1/4" diameter shaft 2" long. Shafts are grooved at popular lengths for easy cutting. All 1 11/16" base types have adjustable stops. Breakdown rating is 500 volts, AC or DC. Current ratings (resistive load): .125 amp at 300 VDC; 3 amps at 6 VDC; 2 amps at 6 VAC. Shpg. wt. 4 oz.

TYPE 1451. Four-pole, two-position. Phenolic-insulated. Breakdown: 1000 VAC RMS. Bushing, 3/8" dia. x 3/8". Shaft, 2 1/4" long. 1.75 A @ 28 VDC; 350 mA @ 115 VAC. Momentary action. 3 oz.

747-1451. 1-9 ..... Each 5.58 **10-24 ..... Each 3.70**
25-49 ..... Each 3.32 **50-Up ..... Each 2.97**

DIAL PLATES

- **For 1 1/4" Base Switches**
- **Etched Aluminum**

These dial plates are for 1 1/4" base switches 3100J and 3200J. Etched aluminum. Black background. 1 13/16" diameter plate. Mounting hole has 7/16" diameter. To order see (*) in table at right.

30° SPACING FOR 1 1/4" BASE SWITCHES

Mfr's Type	Marking	Mfr's Type	Marking
372	1 to 2	382	1 to 12
373	1 to 3	383	Off 1 to 3
374	1 to 4	384	Off 1 to 4
375	1 to 5	385	Off 1 to 5
376	1 to 6	386	Off 1 to 6
377	1 to 7	387	Off 1 to 7
378	1 to 8	388	Off 1 to 8
379	1 to 9	389	Off 1 to 9
380	1 to 10	390	Off 1 to 10
381	1 to 11	.....	.....
*851-OXXX		Each .45	

Shorting Stock No.	Shorting Mfr's Type	Non-Shorting Stock No.	Non-Shorting Mfr's Type	Poles	Positions	Base Dia. (Inches)	EACH 1-9	10-24	25-49	50-Up
851-1415	3115J	851R1485	3215J	1	5	1 1/4	1.95	1.18	1.11	1.05
851-1412	31112J	851R1472	32112J	1	12	1 1/4	1.95	1.18	1.11	1.05
851-1423	3123J	851-1493	3223J	2	3	1 1/4	1.95	1.18	1.11	1.05
851-1426	3126J	851R1496	3226J	2	6	1 1/4	1.95	1.18	1.11	1.05
851-1434	3134J	851R1534	3234J	3	4	1 1/4	2.00	1.22	1.16	1.08
.....	.....	851-1542	3242J	4	2	1 1/4	2.00	1.22	1.16	1.08
.....	.....	851-1543	3243J	4	3	1 1/4	2.00	1.22	1.16	1.08
.....	.....	851-1477	32117J	1	17	1 11/16	2.98	1.79	1.70	1.59
.....	.....	851-1499	3229J	2	9	1 11/16	2.98	1.79	1.70	1.59
.....	.....	851-1536	3236J	3	6	1 11/16	3.15	1.89	1.79	1.69

***TO ORDER DIAL PLATES:** Fill in Mfr's Type No. in place of XXX in 851-OXXX. Example: Type 372 becomes 851-0372.

Rotary Switches

INSULATED ROTARY SELECTOR SWITCHES

COMPLETE ROTARY SWITCHES

Non-Shorting Type		Total Poles	No. of Sections	No. of Pos.	EACH			
Stock No.	Mfr's Type				1-9	10-24	25-49	50-Up
659-0205	T205	1	1	2-12	3.25	2.00	1.60	1.40
659-0206	T206	2	1	2-6	3.25	2.00	1.60	1.40
659-0208	T208	1	4	2-3	3.25	2.00	1.60	1.40
659-0216	T216	2	4	2-6	5.25	3.20	2.50	2.25
659-0225	T225	3	3	2-12	7.30	4.50	3.40	3.20
659-0226	T226	3	6	2-6	7.30	4.50	3.40	3.20

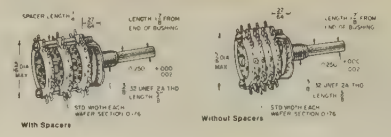
WAFER SWITCH SECTIONS

659-0006	T6	1	2	2-6	1.50	1.00	.77	.72
659-0008	T8	1	4	2-3	1.50	1.00	.77	.72

SHAFT AND 30° DETENT ASSEMBLIES

Standard types with life of 25,000 complete cycles.

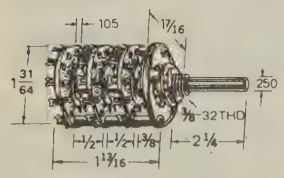
Stock No.	Mfr's Type	No. of Pos.	Sug. No. Secs.	Rear Shaft L.	EACH			
					1-9	10-24	25-49	50-Up
659-0080	T80	2-12	1-3	1 9/32"	2.20	1.35	1.10	1.00
659-0081	T81	2-12	4-6	2 15/16"	3.45	2.15	1.85	1.65



- **Long Life (25,000 Cycles Min.)**
- **Rivet-Free, One-Piece Wafer Construction Permits Closer Stacking**
- **Molded Glass Alkyd Material Won't Break If Jarred or Dropped**

Description: 1 1/16" one-piece molded glass alkyd wafer. Panel mount. Bushing is 3/8" long, has 3/8"-32 UNEF-2A thd. Round shaft 1/4" dia. x 2" FMS. **Electrical Rating:** 1 amp @ 28V DC, 3/4 amp @ 125V AC, both shorting or nonshorting type. **Contact Life:** 25,000 cycles thru 12 positions and return. **Indexing:** detents provide 30° indexing between positions with one fixed and one adjustable stop.

PA-2000 SERIES MINIATURE CERAMIC SWITCHES — 1 1/2 x 1 5/16" SECTIONS

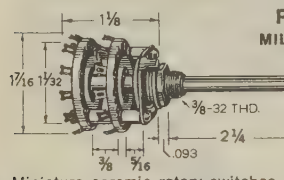


Feature maximum voltage flash-over points, high-Q, low-loss ceramic bodies; minimum intercircuit capacity; insulated front-back clips. Positive 30° indexing; adjustable stop or continuous rotation, except * 60° indexing. All rated 2.75 A @ 15 VDC, 230 mA @ 115 VAC. Hardware incl. Wt. 3 oz./section.

Non-Shorting Stock No.	Non-Shorting Type PA-	Shorting Stock No.	Shorting Type PA-	Total Poles	No. Pos.	Sections	EACH 1-9	10-24	25-49	50-Up
747-2001	2001	747-2000	2000	1	2-12	1	4.33	2.89	2.60	2.31
747R2003	2003	747-2002	2002	2	2-6	1	4.65	3.11	2.79	2.48
747R2005	2005	747-2004	2004	2	2-12	2	6.65	4.44	3.98	3.55
747-2007	2007	747-2006	2006	3	2-5	1	4.80	3.21	2.89	2.56
747-2009	2009	747-2008	2008	3	2-12	3	9.20	6.12	5.51	4.90
747R2011	2011	747-2010	2010	4	2-6	2	7.35	4.90	4.42	3.92
747-2013	2013	.....	....	4	2-12	4	11.45	7.64	6.89	6.10
747-2015	2015	.....	....	5	2-3	1	5.08	3.39	3.05	2.72
747-2019	2019	.....	....	6	2	1	4.85	3.22	2.90	2.57
747-2021	2021	.....	....	6	2-5	2	8.13	5.41	4.87	4.33
747-2023	2023	.....	....	6	2-6	3	10.05	6.70	6.04	5.36
747-2025	2025	.....	....	6	2-12	6	11.66	10.60	9.80	8.70
747-2027	2027	.....	....	8	2-6	4	12.88	8.59	7.73	6.86
747-2029	2029	.....	....	9	2-5	3	10.45	6.95	6.27	5.56
747-2031	2031	.....	....	10	2-3	2	8.20	5.45	4.92	4.37
747-2035	2035	.....	....	12	2	2	7.85	5.23	4.72	4.19
747-2037	2037	.....	....	12	2-6	6	13.86	12.60	11.18	9.84
747-2039	2039	.....	....	15	2-3	3	10.88	7.25	6.53	5.80
747-2041	2041	.....	....	18	2	3	11.48	7.65	6.88	6.11
747-2045	2045*	.....	....	2	2-6	2	6.00	4.00	3.61	3.21

PA-6000 SERIES

MIL-S-3786 STYLE SR03 MILITARY-TYPE



Miniature ceramic rotary switches. 1 9/32" dia. Positive 30° indexing. Adjust. stop. 450 mA @115 VAC. 5 1/2 A @ 12 VDC. Knob, lockwasher, nut incl. Wt. 4 oz.

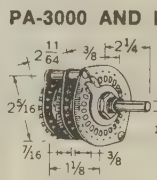
SHORTING TYPES

Stock No.	Type PA-	Total Poles	No. of Pos.	No. of Sec.	EACH 1-9	10-24	25-49	50-Up
747-6002	6002	2	2-5	1	6.85	4.56	4.09	3.66

NON-SHORTING TYPES

747-6001	6001	1	2-11	1	6.75	4.50	4.04	3.60

PA-3000 AND PA-4000 SERIES SWITCHES

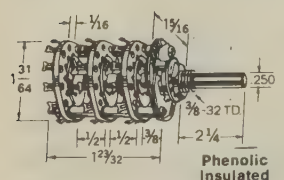


18- and 24-position switches using hill-and-dale index mechanism. Breakdown, 1000 VAC rms. Sections are 2 5/16" high, 1/16" thick. PA-3000 Series: 2.25 A @ 28 VDC, 0.350 A @ 115 VAC; 20° indexing; 2 1/4" wide. PA-4000: 1.5 A @ 28 VDC, 0.230 A @ 115 VAC; 15° indexing; 1 31/32" wide. Wt. 4 oz.

NON-SHORTING TYPES

Stock No.	Type PA-	Sections	Total Poles	No. Pos.	EACH 1-9	10-24	25-49	50-Up
747-3001	3001	1	1	2-17	6.33	4.36	3.79	3.37
747-3003	3003	2	2	2-17	10.53	7.26	6.33	5.62
747-3005	3005	3	3	2-17	13.53	9.04	8.15	7.24
747-3007	3007	4	4	2-17	12.75	11.59	10.55	9.55
747-4001	4001	1	1	2-23	5.13	3.42	3.08	2.74
747-4003	4003	2	2	2-23	8.20	5.46	4.92	4.37
747-4005	4005	3	3	2-23	10.55	7.04	6.33	5.63
747-4007	4007	4	4	2-23	13.75	9.19	8.25	7.35

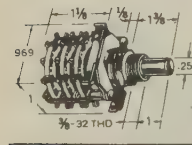
PA-1000 MINIATURE PHENOLIC SWITCHES — 1 1/2 x 1 5/16" SECTIONS



30° indexing; adjustable stop. 2.75 amps @ 15 VDC; 230 mA @ 115 VAC. Index assemblies and hardware identical to PA-2000 Series. Phenolic insulated. Hardware incl. Shpg. wt. 3 oz.

Non-Shorting Stock No.	Non-Shorting Type PA-	Total Poles	No. Pos.	Sections	EACH 1-9	10-24	25-49	50-Up
747-1001	1001	1	2-11	1	3.65	2.44	2.19	1.96
747-1003	1003	2	2-5	1	3.75	2.50	2.24	2.00
747-1005	1005	2	2-11	2	5.03	3.35	3.00	2.68
747-1007	1007	3	2-3	1	3.78	2.52	2.26	2.02
747-1009	1009	3	2-11	3	6.55	4.36	3.93	3.49
747-1013	1013	4	2-5	2	5.23	3.49	3.12	2.79
747-1015	1015	4	2-11	4	8.30	5.52	4.97	4.42
747-1017	1017	5	2-11	5	9.83	6.54	5.88	5.23
747-1019	1019	6	2-3	2	5.40	3.60	3.23	2.88
747-1021	1021	6	2-5	3	6.80	4.52	4.09	3.63

PSA SERIES SUBMINIATURE ROTARY SWITCHES



Positive 30° indexing; adjustable stops. Two-ball star-wheel lateral thrust construction. Sections .080" thick, spaced 5/32". Rated 0.55 A @ 28 VDC; make and break, 170 mA @ 115 VAC. Capacity: 7 amps.

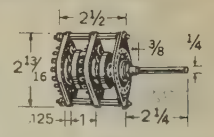
Non-Shorting Stock No.	Non-Shorting Type	Total Poles	No. Pos.	No. Sec.	EACH 1-9	10-24	25-49	50-Up
747-0201	PSA-201	1	2-12	1	7.53	5.02	4.49	4.02
747-0203	PSA-203	2	2-6	1	7.85	5.22	4.72	4.19
747-0207	PSA-207	3	2-5	1	8.00	5.33	4.81	4.27
747-0211	PSA-211	4	2-6	2	11.53	7.70	6.93	6.16
747-0221	PSA-221	6	2-5	2	12.15	8.11	7.31	6.49

PA-2000 CERAMIC SECTIONS

Excellent quality ceramic sections for use in assembly of special switches for commercial and industrial applications. Designed for use with index assemblies PA-300, PA-301 and PA-302 at right. Shpg. wt. 2 oz.

Shorting Stock No.	Shorting Mfr's Type	Non-Shorting Stock No.	Non-Shorting Mfr's Type	Total Poles	No. of Pos.	EACH 1-9	10-24	25-49	50-Up
747-0100	PA-0	747-0101	PA-1	1	2-12	2.63	1.75	1.57	1.40
.....	....	747-0103	PA-3	2	2-6	3.00	2.00	1.79	1.60
.....	....	747-0105	PA-5	3	2-5	3.30	2.20	1.97	1.76

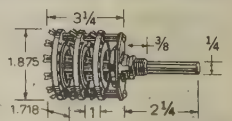
JV-9000 HEAVY-DUTY ROTARY POWER SWITCHES



Silicone-treated ceramic switches for transmitters, industrial and commercial controls, and test gear. Rated 9A at 110 VAC (resistive); 30 A at 5 VDC; .015 A at 2500 VAC rms. Breakdown, 3000 V rms. 20° positive indexing; adjustable stop. All metal parts except clips, contacts and index spring are cadmium plated. Coin silver contacts. Non-shorting. Bushing, 3/8" x 32 thread, 3/8" long. Flatted shaft, 1/4 x 2 1/4" from mounting surface. 1/8" thick ceramic sections; 1" between sections. Wafer size, 2 x 2 13/16". Av. wt. 4 oz.

Stock No.	Type JV-	Sec.	Total Poles	No. Pos.	EACH 1-9	10-24	25-Up
747-9001	9001	1	1	2-17	14.87	13.52	11.57
747-9033	9033	1	2	2-8	15.85	14.41	12.52
747-9005	9005	2	2	2-17	25.20	22.91	19.58
747-9003	9003	1	3	2-5	17.06	15.51	13.51
747-9035	9035	2	4	2-8	26.61	24.19	21.10
747-9007	9007	2	6	2-5	28.93	26.30	23.20
747-9037	9037	3	6	2-8	37.51	34.10	29.80

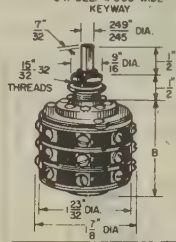
SERIES 2500 CERAMIC ROTARY SWITCHES



1 5/8 x 1 7/8" SECTIONS. Silicone-treated for band change and tap-switch use. Breakdown, 1500 V rms. All rated 2.75 A @ 15 VDC; 350 mA @ 115 VAC, make and break, resistive. Front plate, 1 23/32" x 1 7/8" dia. 1/2" from plate and between sections for 1- and 2-sections switches, 1" spacing for others. Bushing, 3/8" dia. x 3/8" long. Shaft, 1/4" dia. x 2 1/4" long. Positive 30° indexing; 2 adj. stops. Mtg. nut, lockwasher, 1 1/4" black pointer knob. 3 oz. per section.

Non-Shorting Stock No.	Mfr's Type	Total Poles	No. of Pos.	No. of Sec.	EACH 1-9	10-24	25-49	50-Up
747-2501	2501	1	2-6	1	5.28	3.52	3.15	2.82
747-2503	2503	1	2-11	1	5.53	3.68	3.30	2.94
747-2505	2505	2	2-5	1	5.70	3.79	3.40	3.06
747-2508	2507	3	2-3	1	5.83	3.88	3.48	3.10
747-2511	2511	2	2-6	2	7.53	5.01	4.50	4.01
747-2513	2513	2	2-11	2	8.45	5.62	5.06	4.50
747-2515	2515	4	2-5	2	8.68	5.77	5.20	4.63
747-2517	2517	6	2-3	2	9.10	6.05	5.43	4.85
747-2525	2525	6	2-5	3	12.15	8.10	7.26	6.50

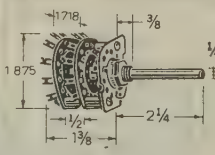
MIL-S-6807 POWER ROTARY SWITCHES



Adjustable stop; or can be used with continuous rotation. Rated 5 amps at 28 VDC and 115 VAC. Non-shorting, with maximum of eight positions; 45° indexing angle. Screw terminals, 1/2" shaft length, 15/32" bushing. With hex nuts, locking ring and lockwasher for mounting. **Military Numbers:** MS25002-1 thru MS25002-6 (1 thru 6 poles and decks). Av. wt. 4 oz.

Stock No.	Mfr's Type	Poles (Decks)	EACH 1-24	25-49	50-99	100-Up
757-3441	7261K14	1	11.33	8.76	7.30	5.84
757-3454	7262K14	2	14.43	13.32	11.10	8.88
757-3471	7264K10	4	24.95	23.03	19.19	15.35
757-3491	7266K6	6	34.90	32.21	26.85	21.48

SERIES 1400 PHENOLIC ROTARY SWITCHES



Ideal for band changes and general tap switch use where miniaturization not necessary. Index assy's. and hdwe. same as Series 2500. Positive 30° indexing. Rated 2.75 A @ 15VDC, 350 mA @ 115VAC, make and break resistive. Nut, washer incl. Wt. 3 oz./sect.

Non-Shorting Stock No.	Mfr's Type	Total Poles	No. of Pos.	No. of Sec.	EACH 1-9	10-24	25-49	50-Up
747-1401	1401	1	2-6	1	4.25	2.83	2.55	2.27
747-1403	1403	1	2-11	1	4.25	2.83	2.55	2.27
747-1411	1411	2	2-6	2	5.53	3.69	3.30	2.95
747-1413	1413	2	2-11	2	6.13	4.07	3.66	3.27
747-1415	1415	4	2-5	2	6.38	4.25	3.80	3.40
747-1429	1429	4	2-11	4	10.68	7.12	6.41	5.70

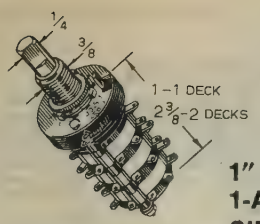
PA-300 SERIES SHAFT/INDEX ASSEMBLIES

Hardware for assembling miniature switches. Each contains a 30° PA index assembly, P-120 pointer knob, adjustable stop plate, assorted spacers, tie bolts, nuts, fiber spacer washers, lock washers, instructions. 3 oz.

Stock No.	Type PA-	Shaft Lgth.	Sections	EACH 1-9	10-24	25-49	50-Up
747-0300	300	2"	1-3	2.40	1.59	1.48	1.28
747-0301	301	4"	4-6	3.50	2.33	2.10	1.87
747-0302	302	6"	7-9	4.93	3.28	2.95	2.63

Precision Rotary and Snap-Action Switches

ENCLOSED LOW CURRENT ROTARY SWITCHES WITH ADJUSTABLE STOPS



NEW!

1" DIAMETER, 1-AMP RATED, SINGLE-DECK SWITCH

Adjustable stop switches provide the form, fit and function equivalent to their fixed-stop counterparts; offer excellent reliability in thousands of applications. Adjustable stops let you set and reset the number of positions per pole. Stops are adjusted by locating stop washers at front of switch. Switches have ¼" shaft diameter and ⅜" bushing diameter. Behind-panel distance: approximately 1". Solder lug terminals.

1" DIAMETER, 1 AMP

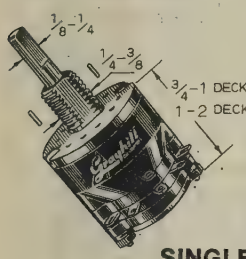
Stock No.	Mfr's Type	No. of Poles	Max. Pos. Ea. Pole	EACH 1-9	10-24	25-Up
801-0980	42D36-01-1-AJN	1	10	9.90	9.11	8.32
801-0990	42D36-01-2-AJN	2	5	10.70	9.84	8.99
801-1060	44D30-01-1-AJN	1	12	10.20	9.38	8.57
801-1070	44D30-01-2-AJN	2	6	11.00	10.12	9.24

½" DIAMETER, 300 mA RATED, SINGLE-DECK SWITCH

Adjustable stop version of popular single-deck rotary switch, offering the form, fit and function equivalent to its fixed-stop counterpart. Sealed or unsealed. The adjustable stops let you set and reset the number of positions per pole, by removing of panel nut (or panel seal nut) and relocating stop pins. Has ⅛" shaft diameter, ¼" bushing diameter. Behind-panel distance: approx. 0.7". *Indicates sealed type; others unsealed. Solder lug term.

½" DIAMETER, 300 mA

Stock No.	Mfr's Type	No. of Poles	Max. Pos. Ea. Pole	EACH 1-9	10-24	25-Up
801-1900	50CD36-01-1-AJN	1	10	13.58	8.33	7.60
801-1910	50CD36-01-2-AJN	2	5	11.85	10.90	9.95
801-1920	50MD36-01-1-AJN	1*	10	10.95	10.07	9.20
801-1930	50MD36-01-2-AJN	2*	5	13.70	12.60	11.51
801-2060	51CD30-01-1-AJN	1	12	14.70	9.02	8.23
801-2070	51CD30-01-2-AJN	2	6	12.60	11.59	10.58
801-2080	51MD30-01-1-AJN	1*	12	11.80	10.86	9.91
801-2090	51MD30-01-2-AJN	2*	6	14.50	13.34	12.18



½" DIAMETER, ¼ AMP RATED, SINGLE-DECK SWITCHES

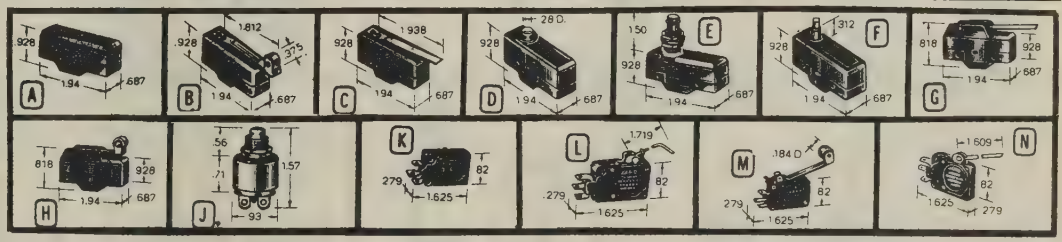
Excellent quality adjustable-stop switches at an economical price. Provide the form, fit and function equivalent to their fixed-stop counterparts. Gold-plated contact systems; diallyl insulating materials. Adjustable stops are set and reset by locating stop pins at front of switch. Stops are held in place by a mylar sticker. Behind-panel distance: approximately ¾". Choice of ⅛" or ¼" shaft diameter (with ⅛" and ⅜" diameter bushings, respectively). Solder lug terminals.

½" DIAMETER, ¼ AMP

Stock No.	Mfr's Type	Shaft Dia.	No. of Poles	Max. Pos. Ea. Pole	EACH 1-9	10-24	25-Up
801-2100	71AD36-01-1-AJN	⅛"	1	10	8.55	5.24	4.79
801-2110	71AD36-01-2-AJN	⅛"	2	5	8.93	5.47	5.00
801-2120	71AD30-01-1-AJN	⅛"	1	12	8.55	5.24	4.79
801-2130	71AD30-01-2-AJN	⅛"	2	6	8.93	5.47	5.00
801-2140	71BD36-01-1-AJN	¼"	1	10	8.55	5.24	4.79
801-2150	71BD36-01-2-AJN	¼"	2	5	8.93	5.47	5.00
801-2160	71BD30-01-1-AJN	¼"	1	12	8.55	5.24	4.79
801-2170	71BD30-01-2-AJN	¼"	2	6	8.93	5.47	5.00

SNAP ACTION SPDT SWITCHES WITH MICRO EQUIVALENTS

Clip-on covers; constant-stress rolling spring action. U.L. Component Program-Recognized; C.S.A. Listed. Av. wt. 2 oz.



STANDARD-DUTY TYPES

Excellent repeatability, low traverse time, high contact pressure. Contacts rated 15 amps. 120/240/480 VAC; 0.5 A at 120 VDC. *Solder terminals; others screw.

Stock No.	Type BRD2-	Micro Equiv. BZ-	Oper. Force Oz.	Pre-trav. In.	Fig.	EACH 1-9	10-19	20-Up
905-0455	1A*	2R	9-13	.020	A	3.13	1.84	1.72
905-0454	1A-1S	2R-A2	9-13	.020	A	3.33	2.07	1.84
905-0493	5L*	2RL	5	.156	C	3.48	2.16	1.92
905-0495	5L-1S	2RL-A2	5	.156	C	3.85	2.39	2.12
905-0473	2M*	2RL2	5	.156	B	4.65	2.88	2.56
905-0478	2M-1S	2RL2-A2	5	.156	B	4.85	3.02	2.68
905-0498	7D-1S	2RD-1A	9-13	.025	D	4.05	2.52	2.24
905-0457	1P*	2RQ1	9-13	.025	E	6.83	4.23	3.76
905R0458	1P-1S	2RQ1-A2	9-13	.025	E	6.95	4.32	3.84
905-0461	10-1S	2RS-A2	9-13	.025	F	4.35	2.70	2.40
905-0372	LW8*	2RW	2½	.406	G	3.70	2.30	2.04
905-0374	LW8-1S	2RW-A2	2½	.406	G	4.78	2.97	2.64
905-0389	LW228*	2RW22	6	.140	H	4.73	2.93	2.60
905R0391	LW228-1S	2RW22-A2	6	.140	H	4.85	3.02	2.68

HEAVY-DUTY TYPES

Rated 21 amps, 120-240-480 VAC; 1 hp at 120 VAC and 2 hp at 240 VAC. All have screw terminals.

Stock No.	Mfr's Type	Micro Equiv.	Oper. Force Oz.	Pre-trav. In.	Fig.	EACH 1-9	10-Up
905-1215	FAD2-1A-1S	BA-2R-A2	10-18	1/20	A	3.34	2.07
905-1240	FAD2-5L-1S	BA-2RL-A2	9	11/32	B	3.85	2.38
905-1229	FAD2-1P-1S	BA-2RQ1-A2	10-18	1/20	E	6.96	4.32
905-1202	FAD2-LV-1S	BA-2RV-A2	2½	5/8	G	4.21	2.61
905-1204	FAD2-LV2-1S	BA-2RV2-A2	2½	15/32	H	5.29	3.29

SNAP-ACTION PUSHBUTTON SWITCHES

Panel mount; momentary contact; overtravel plunger. Solder lug term. SPST; rated 6 A, 230 VAC; 12 A, 125 VAC. Oper. force, 10-15 oz. Min. overtravel, .007". 3DO5-5P has black button; 3DC5-5P red.

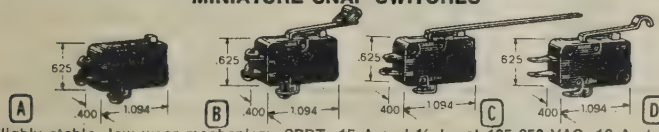
Stock No.	Mfr's Type	Fig.	Circuit	Pre-travel In.	EACH 1-9	10-19	20-Up
905R5811	3DO5-5P	J	N.O.	.10	3.48	2.16	1.92
905R5805	3DC5-5P	J	N.C.	.03-.06	3.48	2.16	1.92

MINIATURE LIGHT-PRESSURE SWITCHES

Shock resistant miniature light-pressure switches for long-life performance. "M" types have 1/32" pretravel and are rated 10 amps, 125-250 volts AC. "CM" types have 3/64" pretravel and are rated 10 amps, 250 volts AC. All are single pole double throw. †Indicates force in grams. Solder terminals.

Stock No.	Mfr's Type	Actuator Type	Oper. Force Oz.	Fig.	EACH 1-9	10-Up
905-5701	1MO1-1A	Pin plunger	6	K	2.54	1.58
905-5710	2MO3-1A	Pin plunger	10	K	2.54	1.58
905-5500	1CMD1-2AXX	Pin plunger	†20-27	K	2.54	1.58
905-5505	2CMD1-2AXX	Pin plunger	†33-44	K	2.54	1.58
905R5502	1CMD1-2AXX-A22	Wire Leaf	†12.5	L	3.12	1.94
905R5507	2CMD1-2AXX-A24	Flat Leaf	†4	N	3.12	1.94
905-5501	1CMD1-1AXX-A23M	Roller Leaf	5-8	M	3.12	1.94
905-5504	1CMD1-18AXX-A27	Nylon Leaf	†6	N	3.48	2.16
905-5703	1MO1A-18A	Pin plunger	6	K	2.12	1.55

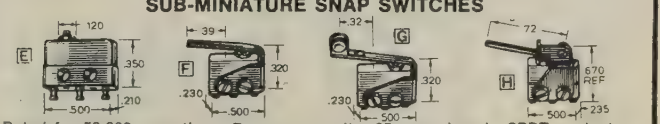
MINIATURE SNAP SWITCHES



Highly stable, low wear mechanism. SPDT; 15 A and ⅓ hp at 125-250 VAC, 10 A at 28 VDC. Operating position, .578" ±.015. Oper. force, 6-14 oz.; release, 4 oz. min. Size, 1.094 x .625 x .400". U.L., CSA Listed. QC indicates quick-connect term.

Stock No.	Mfr's Type	Micro Equiv.	Mfr's Equiv.	Fig.	Description	EACH 1-24	25-49	50-99	100-Up
757-0660	SS12ET10	V3-1	VD0007	A	Screw terminals	1.50	1.17	1.04	.91
757-0663	SS12ET20	V3-19	VD0001	A	Solder lug terminals	1.28	.99	.88	.77
757-0666	SS12ET30	V3-1-D8	E23-024	A	Quick-connect terminals	1.10	.86	.76	.67
757-0669	SS12ET302L1	V3L-1-D8	E33-00H	C	Straight lever (.840"); QC	1.28	.99	.88	.77
757-0672	SS12ET302L2	V3L-2-D8	E33-50H	C	Straight lever (1.40"); QC	1.28	.99	.88	.77
757-0675	SS12ET302L6	V3L-6-D8	.....	C	Straight lever (2.34"); QC	1.28	.99	.88	.77
757-0677	SS12T302L14	V3L-14-D8	....	C	Straight lever (2.75"); QC	1.28	.99	.88	.77
757-0690	SS12ET3012L5	V3L-5-D8	.....	B	Simul. roller (1.285"); QC	1.33	1.04	.92	.81
757-0691	SS12ET30102L3	V3L-3-D8	.....	D	Roller lever (.81"); QC	1.55	1.22	1.08	.95
757R0692	SS12ET30102L4	V3L-4-D8	E33-50K	D	Roller lever (1.34"); QC	1.55	1.22	1.08	.95

SUB-MINIATURE SNAP SWITCHES



Rated for 50,000 operations. 7 amps capacity; 25 amps inrush. SPDT contacts; turret term. Temp.: —65° to +265°F. Oper. force, 5 oz. except low force, 3 oz. Release force, 1 oz. Pretravel, .020". Overtravel, .010". Oper. position, .320" ±.015. U.L. Listed. .500 x .380 x .210". **Note: SW54 series are acuators only, not with switch.**

Stock No.	Mfr's Type	Micro Equiv.	Fig.	Description	EACH 1-24	25-49	50-99	100-Up
757-0610	SS10AT40	1SX1-T	E	Standard	3.68	2.88	2.56	2.24
757-0612	SS10FT40	2SX1-T	E	Low force	4.48	3.51	3.12	2.73
757-0616	SS10KT40	3SX1-T	E	Gold contacts	5.75	4.55	4.00	3.50
757-1201	SW54SA8380-1	JX40	F	Leaf	.32	.25	.22	.20
757-1202	SW54SA8380-2	JX41	F	Reverse leaf	.32	.25	.22	.20
757-1203	SW54SA8380-3	JX45	G	Roller leaf	.90	.70	.62	.55
757-1205	SW54SA8380-5	JX20	H	Lever	.98	.77	.68	.60

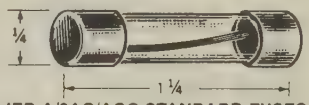
Standard Instrument Fuses

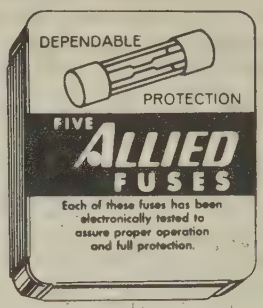
INSTRUMENT FUSES FOR EVERY REQUIREMENT

FAST ACTING FUSES

Quick acting, normal-blowing fuses for short time lag applications. Protect meters, radios, amplifiers, etc. Diagonal alignment of fuse element assures accurate blowing even when element is expanded by heat. Unaffected by high operating temperatures. Carry 110% of rating. Will open at 135% in one hour or less, at 200% in ten seconds or less. 250 V maximum except * 125 V, and † 32 V. Listed by U.L. through 8 amps. Av. wt: 2 oz. **Sold only in packages of 5.**

Quality Fuses for Every Application

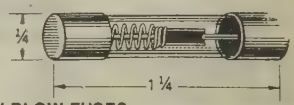




SLOW BLOW FUSES

Provide protection for equipment having high reactive current surges or heavy starting currents—such as magnets, solenoids, motors and lamp circuits, but still blow quickly from continued overloads. Carry 100% of rated load 4 hours minimum. Will blow at 135% in one hour or less; 200%, 5 seconds minimum. Employ anti-fatigue construction — compound element with spring and resistor. 250 volt maximum except * 125 V, and † 32 V. Av. shpg. wt: 2 oz. **Sold only in packages of 5.**

Withstand Momentary High-Current Surges but Blow Quickly on Shorts



ALLIED A/3AG/AGC STANDARD FUSES

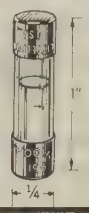
Stock No.	Type	Amp	PER PKG. OF 5 1-19	20-99	100-Up
603-0125	A/3AG/AGC	1/16	2.00	1.60	1.34
603-0126	A/3AG/AGC	1/8	2.00	1.60	1.34
603-0128	A/3AG/AGC	3/16	2.00	1.60	1.34
603-0106	A/3AG/AGC	2/10	2.00	1.60	1.34
603-0107	A/3AG/AGC	1/4	1.15	.92	.77
603-0131	A/3AG/AGC	3/10	1.15	.92	.77
603-0132	A/3AG/AGC	3/8	1.15	.92	.77
603-0110	A/3AG/AGC	1/2	1.15	.92	.77
603-0134	A/3AG/AGC	6/10	1.15	.92	.77
603R0135	A/3AG/AGC	3/4	1.15	.92	.77
603-0113	A/3AG/AGC	1	.83	.66	.55
603-0114	A/3AG/AGC	1 1/2	.83	.66	.55
603-0115	A/3AG/AGC	2	.83	.66	.55
603-0116	A/3AG/AGC	2 1/2	.83	.66	.55
603R0141	A/3AG/AGC	3	.83	.66	.55
603R0143	A/3AG/AGC	4	.83	.66	.55
603R0144	A/3AG/AGC	5	.60	.48	.40
603R0145	A/3AG/AGC	6	.60	.48	.40
603-0105	A/3AG/AGC	8*	.60	.48	.40
603-0102	A/3AG/AGC	5†	.60	.48	.40
603-0103	A/3AG/AGC	6†	.60	.48	.40
603-0200	A/3AG/AGC	7 1/2†	.60	.48	.40
603R0201	A/3AG/AGC	10	.60	.48	.40
603R0202	A/3AG/AGC	15†	.60	.48	.40
603-0173	A/3AG/AGC	25†	.60	.48	.40
603-0204	A/3AG/AGC	30†	.60	.48	.40

ALLIED A/3AG/MDL SLOW-BLOW FUSES

Stock No.	Type	Amp	PER PKG. OF 5 1-19	20-99	100-Up
603-0212	A/3AG/MDL	1/10	2.50	2.00	1.67
603-0213	A/3AG/MDL	1/8	2.50	2.00	1.67
603R0218	A/3AG/MDL	1/4	2.50	2.00	1.67
603-0219	A/3AG/MDL	3/10	2.50	2.00	1.67
603-0220	A/3AG/MDL	3/8	2.50	2.00	1.67
603R0222	A/3AG/MDL	1/2	2.50	2.00	1.67
603-0223	A/3AG/MDL	6/10	2.50	2.00	1.67
603-0225	A/3AG/MDL	3/4	2.50	2.00	1.67
603-0226	A/3AG/MDL	8/10	2.50	2.00	1.67
603R0227	A/3AG/MDL	1	2.50	2.00	1.67
603-0229	A/3AG/MDL	1 1/4	2.38	1.90	1.59
603R0230	A/3AG/MDL	1 1/2	2.38	1.90	1.59
603-0231	A/3AG/MDL	1 6/10	2.38	1.90	1.59
603R0232	A/3AG/MDL	2	2.38	1.90	1.59
603-0233	A/3AG/MDL	2 1/2*	2.00	1.60	1.34
603R0235	A/3AG/MDL	3*	2.00	1.60	1.34
603-0236	A/3AG/MDL	3 2/10*	2.00	1.60	1.34
603R0237	A/3AG/MDL	4*	2.00	1.60	1.34
603R0238	A/3AG/MDL	5*	2.00	1.60	1.34
603-0239	A/3AG/MDL	6 1/4*	2.00	1.60	1.34
603-0240	A/3AG/MDL	7†	2.00	1.60	1.34
603R0242	A/3AG/MDL	8†	2.00	1.60	1.34
603R0243	A/3AG/MDL	10†	2.00	1.60	1.34
603R0244	A/3AG/MDL	15†	2.00	1.66	1.34
603-0245	A/3AG/MDL	20†	2.00	1.60	1.34
603-0247	A/3AG/MDL	30†	2.00	1.60	1.34

FAST-ACTING INSTRUMENT FUSES

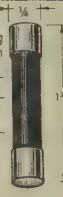
Series 361000 or AGX. Formerly 8AG. 250 V max. *125 V. 1x¼". 2 oz. **Sold in Pkg. of 5.**



Stock No.	Amp	PER PKG. OF 5 1-4	5-99	100-Up	Stock No.	Amp	PER PKG. OF 5 1-4	5-99	100-Up
845-0430	1/200	5.38	4.30	3.59	845-0438	½	1.15	.92	.77
845-0432	1/32	3.88	3.10	2.58	845R0439	1	.83	.66	.55
845-0433	1/16	2.50	2.00	1.67	845-0440	1½	.83	.66	.55
845-0434	1/10	2.00	1.60	1.34	845R0441	2	.83	.66	.55
845-0435	1/8	2.00	1.60	1.34	845-0442	3*	.83	.66	.55
845R0436	¼	1.15	.92	.77	845-0443	5*	.60	.48	.40

CERAMIC TUBE FUSES

Series 314000 or ABC high-interrupting capacity fuses for circuits capable of delivering currents as high as 25,000 amps at 125 volts, or 10,000 amps at 250 volts. Carry 110%, open at 135% within one hour. 15 amps and less U.L. Listed. **Sold in pkgs. of 5.**



Stock No.	Amp.	PER PKG. OF 5 1-4	5-99	100-Up	Stock No.	Amp.	PER PKG. OF 5 1-4	5-99	100-Up
845-0255	1	1.63	1.30	.92	845R0271	10	1.38	1.10	.78
845-0259	2	1.63	1.30	.92	845-0272	12	1.38	1.10	.78
845-0262	3	1.63	1.30	.92	845R0273	15	1.38	1.10	.78
845-0264	5	1.38	1.10	.78	845R0274	20*	1.38	1.10	.78
845-0265	6	1.38	1.10	.78	845-0275	25*	2.13	1.70	1.21
845R0269	8	1.38	1.10	.78	*125 V maximum, others 250 V maximum				

FUSETRON FNM FIBER TUBE FUSES

Dual-element, slow-blowing. Protects against continued overloads. 250 V max. 1 1/2 x 3/32. U.L. Listed. 2 oz. **Sold only in pkgs. of 10.**

Stock No.	Amp	PER PKG. OF 10 1-2	3-7	8-Up	Stock No.	Amp	PER PKG. OF 10 1-2	3-7	8-Up
740-0091	3/10	9.00	7.20	6.01	740-0110	5	9.00	7.20	6.01
740-0094	6/10	9.00	7.20	6.01	740-0115	6¼	9.00	7.20	6.01
740-0095	8/10	9.00	7.20	6.01	740-0120	7	9.00	7.20	6.01
740-0096	1	9.00	7.20	6.01	740R0125	10	9.00	7.20	6.01
740-0101	2	9.00	7.20	6.01	740-0130	12	9.00	7.20	6.01
740-0106	3½	9.00	7.20	6.01	740-0135	15	9.00	7.20	6.01

PICOFUSE MICROMINIATURE FUSES

For 125V or less micro circuits where short circuit may be 300 amps at 125 VDC needing fast action. May encapsulate fuses. Blow specs: 100%. Four hours min.: 200%. 5 sec. max. 7/32 x 5/64". Shpg. wt. 2 oz. **In pkgs. of 5.**

275000 AXIAL LEADS

Stock No.	A	PER PKG. OF 5 1-4	5-99	100-Up	Stock No.	A	PER PKG. OF 5 1-4	5-99	100-Up
845-0044	1/8	3.85	3.08	2.57	845-0053	2	3.38	2.70	2.25
845-0045	¼	3.85	3.08	2.57	845-0055	3	3.38	2.70	2.25
845-0047	½	3.85	3.08	2.57	845-0056	4	3.38	2.70	2.25
845-0049	1	3.38	2.70	2.25	845-0057	5	3.38	2.70	2.25

RECTIFIER FUSES

Use fast acting fuses anywhere needed. Designed to protect other fused diodes. Use in systems with fault current to 200,000A at 600V or less.
*Length including terminals.

KAA SERIES (Max. Volts, 130. 1 1/2 x 3/32".)

Stock No.	A	EACH 1-9	10-24	25-Up	Stock No.	A	EACH 1-9	10-24	25-Up
740-0502	1	2.33	1.86	1.55	740-0523	10	2.33	1.86	1.55
740-0514	5	2.33	1.86	1.55	740-0532	20	2.33	1.86	1.55
740-0520	8	2.33	1.86	1.55	740-0538	30	2.33	1.86	1.55

KAB SERIES (Max. Volts, 250. 2 x 9/16"; *3 1/8 x 1 7/32".)

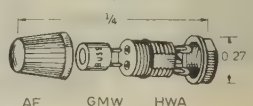
740-0578	8	2.65	2.12	1.77	740-0592	25	2.65	2.12	1.77
740-0586	15	2.65	2.12	1.77	740-0595	30	2.65	2.12	1.77
740-0589	20	2.65	2.12	1.77	740-0602	70*	11.90	9.52	7.95

KAC SERIES (Max. Volts, 600. 2 7/8 x 9/16".)

740-0632	5	3.93	3.14	2.62

GMW SUBMINIATURE FUSES AND HOLDERS

Type GMW subminiature prong-type fuse rated 125V max. fault current 300A max. Opens at 200% within 10 sec. or less. 0.27" dia. ¼" long. HWA holder. With Type AF knob. Av. shpg. wt. 2 oz. In pkgs of 10.

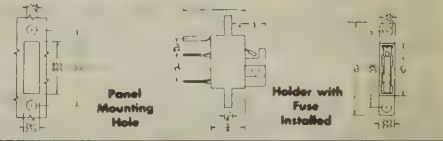


Stock No.	Amps	PER PKG. OF 10 1-9	10-49	50-Up
740-0442	1/10	11.75	9.40	7.85
740-0444	1/2	11.75	9.40	7.85
740-0446	1	11.75	9.40	7.85
740-0447	1 1/2	11.75	9.40	7.85
740-0448	2	11.75	9.40	7.85
740-0499	*	10.02	8.52	7.98

*HWA Holder, fits GMW and Type 27300 fuses.

GMT SIGNAL INDICATING FUSES

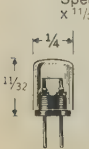
For multiple mounting of fuses in limited space. ¼ x 1 13/32" mounting space. Color-coded plastic flag on spring indicates fuse ampere rating when fuse blows. Average shpg. wt. ⅛ oz.



Stock No.	Amps	Color of Indicator	EACH 1-9	10-99	100-499	500-Up
740-0412	½	Red	.88	.70	.59	.50
740-0415	1	Gray	.88	.70	.59	.50
740-0416	1⅓	White	.88	.70	.59	.50
740-0417	2	Orange	.88	.70	.59	.50
740-0422	3	Blue	.88	.70	.59	.50
740-0427	5	Green	.88	.70	.59	.50
740-0439	HLT Fuseholder		.93	.74	.62	.53

PLUG-IN MICROFUSES

TYPE 27300. Subminiature plug-in fuses: low resistance, high-speed action. Glass cap HWA holders above. Short-circuit interrupting capacity, 125V, 10,000 amps DC. Blow Spec: 100%, 4 hrs. min.; 200%, 5 sec. max. Mfr's. type is Micro(amp)A, e.g. Micro 1/500A. ¼ x 1 1/32". Wt. 2 oz.

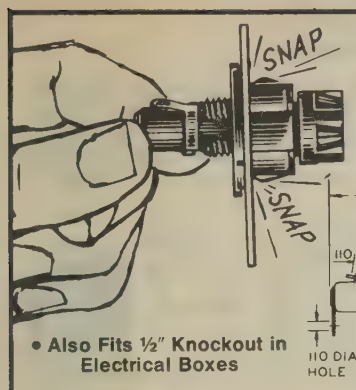


Stock No.	† Amp	PER PKG. OF 5 1-4	5-99	100-Up	Stock No.	† Amp	PER PKG. OF 5 1-4	5-99	100-Up
845-0015	1/20	8.10	6.50	5.42	845-0036	2	8.10	6.50	5.42
845-0017	1/10	8.10	6.50	5.42	845-0038	3	8.10	6.50	5.42
845-0023	¼	8.10	6.50	5.42	845-0040	4	8.10	6.50	5.42
845-0027	½	8.10	6.50	5.42	845-0041	5	8.10	6.50	5.42
845-0032	1	8.10	6.50	5.42					

Contact Allied Electronics for Higher Quantity Price Breaks

Fuseholders and Fuse Blocks

PANEL MOUNTED FUSEHOLDERS



"SNAP-LOCK" REAR PANEL MOUNTED FUSEHOLDERS

- **Unique "Snap-Lock" Feature**
- **Easy and Fast to Install**
- **Also Fits ½" Knockout in Electrical Boxes**

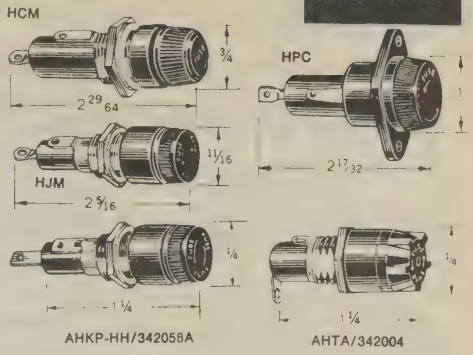
Can be pre-wired. A fastening nut is eliminated because the "Snap-Lock" securely holds the fuseholder in place. Simply install by pushing it into panel from rear side. Can be used in panels .025 to .085" thick.

TYPE HTA-00. Takes ¼ x 1¼" fuses. Space saver, extends just 1" behind the panel.

740-3001. 1-9 ..... **Each .90** **10-24** ..... **Each .72** **25-Up** ..... **Each .60**

TYPE HKP-00. Takes ¼ x 1¼" fuses. Standard fuseholder.

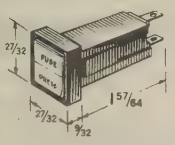
740-3003. 1-9 ..... **Each 1.07** **10-24** ..... **Each .86** **25-Up** ..... **Each .71**



Through-panel mounting fuseholders feature knurled molded cap for quick front-of-panel fuse replacement. Hex-nut mounting facilitates installation — drill ½" mounting hole, insert fuseholder and tighten. For use in virtually any electrical or electronic area requiring overload protection. *Indicates quick-connect terminals.

Stock No.	Mfr's Type	Fuse Size	Type Term.	Amp.	EACH 1-9	10-24	25-49	50-Up
740-2001	HCM	9/32x1 1/2	Solder	18	1.23	.98	.82	.69
740R2002	HJM	1/4x1	Solder	30	.78	.62	.52	.44
740R2003	HKP	1/4x1 1/4	Solder	30	.78	.62	.52	.44
740R2004	HKP-HH	1/4x1 1/4	*1/4	30	.93	.74	.62	.53
740R2005	HPC	13/32x1 1/4	Solder	15	1.33	1.06	.89	.75
740R2006	HTA	1/4x1 1/4	Solder	15	.78	.62	.52	.44
740-2007	HTA-DD	1/4x1 1/4	*3/16	15	.90	.72	.60	.51
740-2008	HTA-HH	1/4x1 1/4	*1/4	15	.90	.72	.60	.51

LOW PROFILE FUSE HOLDERS FOR 3 AG AND 8AG FUSES



Snap-in holder for 3AG standard fuses and 8AG fuses. Color-coded body and cap. Quick-connect solder terminals available in two widths. Withstands 1500 volts between terminals and terminals to ground. Withstands 50 G for 11 msec. vibration; withstands 10-55 Hz at 0.06" double amplitude vibration. Rated 15 amps at any voltage to 250 V. Mounts in .0625" sq. hole in 1/32-1/8" thick panel.

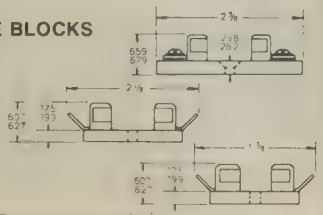
Stock No.	Mfr's Type	Term. Size	BODIES Color	EACH 1-9	10-99	100-500	500-Up
845-0667	3486	3/16"	Black	.71	.57	.47	.40
845-0681	3488	1/4"	Red	.71	.57	.47	.40
845-0687	3488	1/4"	Black	.71	.57	.47	.40
			CAPS				
845-0611	3480	...	Red	.25	.20	.16	.14
845-0615	3480	...	White	.25	.20	.16	.14
845-0617	3480	...	Black	.25	.20	.16	.14

ALLIED FC FUSEHOLDER, SWITCH AND PILOT LIGHT

115/230 V, 60 Hz AC. Take 6-amp quick or slow-lay 3AG fuse. Unit life: 50,000 cycles at 6 per minute. Use with "Fast-On" terminals. **Type FCA:** Separate circuits for main and pilot light. Main rated 6A. **Type FCB:** Same as FCA but one side of pilot light is common with main. Mounts in ½" hole. Suffix F — Plain Ferrule; K — Knurled Ferrule; N — Knurled Nut; W — Escutcheon requiring ¾" dia. hole. 2 oz.

Stock No.	Mfr's Type	EACH 1-9	10-Up
565-8035	FCA-F	12.50	6.50
565-8039	FCA-K	12.50	6.50
565-8042	FCA-N	12.50	6.50
565-8057	FCA-W	12.88	6.75
565-8065	FCB-F	12.50	6.50
565-8069	FCB-K	12.50	6.50
565-8072	FCB-N	12.50	6.50
565-8087	FCB-W	12.88	6.75

STANDARD FUSE BLOCKS

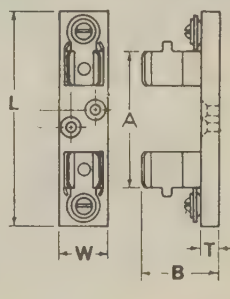


Black phenolic base. Clips of strong spring bronze. Type 3823 and 3828 have soldered terminals on small base. Mounting holes for No. 6 screw. Type 3833 has screw on full base that provides insulation around terminals.

SCREW TERMINALS FOR ¼ x 1¼" FUSES

Stock No.	Mfr's Type	Base Dimensions	No. Poles	EACH 1-9	10-99	100-499	500-Up
740R1000	3833-1	25/32x2 3/8"	1	.70	.56	.47	.40
740-1001	3833-2	1 11/16x2 3/8"	2	1.45	1.16	.97	.82
740-1002	3833-3	2 19/32x2 3/8"	3	2.38	1.90	1.59	1.35
740-1004	3833-5	4 13/32x2 3/8"	5	3.68	2.94	2.45	2.09
740-1005	3833-6	5 5/16x2 3/8"	6	4.40	3.52	2.94	2.50
740-1011	3833-12	10 3/4x2 3/8"	12	8.80	7.04	5.88	5.00
SOLDER TERMINALS FOR ½ x 1¼" FUSES							
740R0951	3823-1	1/2x1 5/8"	1	.40	.32	.27	.23
740-0952	3832-2	1 1/8x1 5/8"	2	.68	.54	.45	.38
740-0953	3823-3	1 3/4x1 5/8"	3	1.10	.88	.73	.62
SOLDER TERMINAL FOR ¼ x 1" FUSE							
740-0971	3828-1	1/2x1 5/8"	1	.40	.32	.27	.23

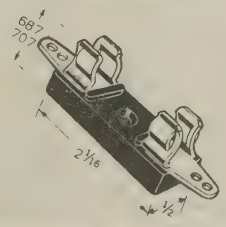
FUSE BLOCKS FOR RECTIFIER PROTECTION FUSES



Front-connected fuse blocks to take KAA, KAB and KAC fuses for protection of semi-conductor rectifiers, are intended for mounting inside the rectifier housing. Base and spacers are constructed of phenolic composition. Spring clips where used are silver-plated beryllium copper for 13/32 inch diameter fuses, and spring bronze in larger sizes. Other current-carrying parts on all blocks are of brass. Rated 1-30 amps.

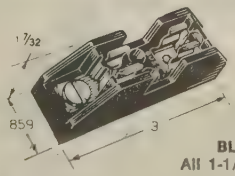
Stock No.	Mfr's Type	For Type	Poles	Dimensions L x W x T	A	B	EACH 1-9	10-49	50-Up
740-0947	3528	KAC	3	3 1/2x2 1/2x1/2	1 7/8	2 1/2	5.55	4.44	3.71
740-0950	3595	KAC	1	3 1/2x1 1/4x1/2	1 7/8	2 1/2	2.80	2.24	1.87
740-1088	4386	KAB	1	3 1/4x3/4x3/8	1 15/16	2 5/16	1.73	1.38	1.15
740-2015	4515	KAA	1	2 9/16x3/4x3/16	1 5/16	1 9/16	1.17	.94	.78

FUSE BLOCKS FOR ¼" AND 1½" FUSES



BLOCKS FOR 13/32x1½" FUSES. Have molded phenolic bases, side barriers, screw terminals. Type 3743 is add-on type, each pole locks into next. Specify one type 3742 end barrier for each fuse strip intended. Spring bronze, abaloy plated clips.

BLOCKS FOR 1¼x¼" FUSES. All feature compact bakelite base, abaloy-plated solder terminals. Number of poles in table below indicates number of fuse positions.



BLOCKS FOR ¼x1¼" FUSES
All 1-1/8" lgth. by .500" per pole wide.

Stock No.	Type	Poles	EACH 1-9	10-49	50-99	100-Up
740R0905	4405	1	.43	.34	.28	.24
740R0906	4408	2	.72	.58	.48	.41

BLOCKS FOR 13/32x1½" FUSES
All 3" lgth. approx. .84" per pole wide.

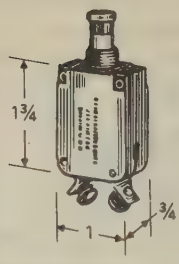
740-0904	3742	—	.25	.20	.16	.14
740-0900	3743	1	1.80	1.44	1.20	1.02
740-0901	2807	1	1.20	.96	.80	.68
740-0902	2808	2	1.95	1.56	1.30	1.11
740-0903	2809	3	2.70	2.16	1.80	1.53

Circuit Breakers

SINGLE-POLE THERMAL TYPES

MODEL 507 MILITARY TYPE

- **Meets MIL-C-5809D and Dwg. MS25244**
- **Trip Time at 200% 25 Seconds**

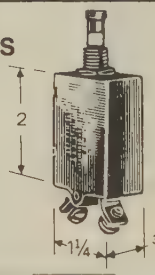


For AC and DC circuits. Interrupts over 200 amps. Max. operating voltages are 250V AC and 32V DC. Units carry indefinitely 115% of rated load with ultimate trip at 138%. Size: 1¾"x¾"x1". Shpg. wt. 10½ oz.

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989-6505	507-205-101	5	14.25	12.22	10.86
989-6507	507-210-101	10	14.25	12.22	10.86
989-6512	507-220-101	20	14.25	12.22	10.86

MODELS 109 AND 111 PUSH-PULL TYPES

- **Precision Latching Components**
- **Bimetallic Element Link Between Overload and Mechanical Tripping**
- **Carries 100% Rated Load Indefinitely**

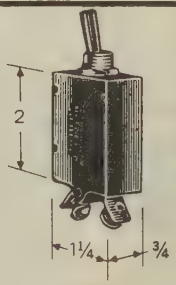


Convenient push-pull button for operating or closing circuits. **Max. Operating Voltage:** 250 VAC and 32 VDC. **Tripping Time:** Model 109 is 9 seconds at 200% with interruption over 5000 amps and Model 111 is 75 seconds at 200% with interruption over 100 amps. **Dielectric Strength:** 1500 volts RMS. **Voltage Drop:** less than 1½ volts. **Resistance:** less than ¼ ohms. **Size:** 2x¾"x1¼". **Shpg. Wt.** 2 oz.

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989-6116	111-201-101	1	11.19	9.51	8.91
989-6117	111-202-101	2	11.19	9.51	8.91
989-6063	109-205-101	5	8.13	6.50	5.43
989-6090	109-507-101	7.5	8.13	6.50	5.43
989-6066	109-210-101	10	8.13	6.50	5.43
989-6069	109-215-101	15	8.13	6.50	5.43
989-6072	109-220-101	20	8.13	6.50	5.43
989-6078	109-230-101	30	8.13	6.50	5.43

MODEL 112 TOGGLE TYPE

- **Meets MIL-E-5272C Specifications**
- **Contact Wiping Action for Minimum Corrosion**
- **Available Ampere Ratings 5-50 Amps**

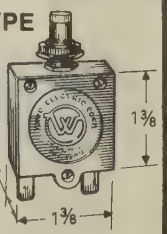


Combination switch and circuit breaker for miniature applications. **Meets MIL-E-5275C** for AC and DC circuits. Carries 100% of rated load indefinitely, with ultimate trip at 135%. Tripping time at 200% is 10 seconds. Interruption, over 3000 amps. For 250 VAC, 32 VDC. Size: 2x¾"x1¼". Shpg. wt. 2 oz.

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989R6130	112-205-101	5	8.70	6.96	5.81
989-6154	112-507-101	7.5	8.70	6.96	5.81
989R6133	112-210-101	10	8.70	6.96	5.81
989R6136	112-215-101	15	8.70	6.96	5.81
989R6139	112-220-101	20	8.70	6.96	5.81
989-6142	112-225-101	25	8.70	6.96	5.81
989-6145	112-230-101	30	8.70	6.96	5.81
989-6148	112-235-101	35	8.70	6.96	5.81
989-6152	112-250-101	50	8.70	6.96	5.81

MODELS 374 AND 375 PUSH–TO-RESET TYPE

- **Available Ampere Ratings 1-20 Amps**
- **Close Operating Tolerance Repeatability**
- **Heater Wire to Assist on Low Ratings**



Here's an economical way to get low current protection. Button extends to indicate overload. **Max. Operating Voltage:** 250 VAC and 32 VDC. Carries 100% of rated load with ultimate trip at 135%. **Tripping Time:** Model 374 is 10 sec. at 200% with interruption over 1000 amps and Model 375 is 7 sec at 200% with interruption over 300 amps. **Dielectric Strength:** over 1500 volts RMS. **Voltage Drop:** less than 1½ volts. **Size:** 1⅜"x1 11/16"x1¾". **Shpg. Wt.** 1½ oz.

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989R6486	374-201-101	1	4.70	3.76	3.13
989R6487	374-202-101	2	4.70	3.76	3.13
989R6488	374-203-101	3	4.70	3.76	3.13
989-6489	374-204-101	4	4.70	3.76	3.13
989R6490	375-205-101	5	3.03	2.42	2.02
989-6491	375-207-101	7	3.03	2.42	2.02
989R6492	375-210-101	10	3.03	2.42	2.02
989R6496	375-215-101	15	3.03	2.42	2.02
989-6501	375-220-101	20	3.03	2.42	2.02

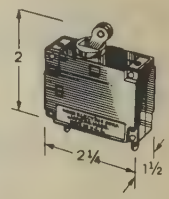
MINI-MAG HYDRAULIC-MAGNETIC CIRCUIT BREAKERS

Rugged construction protects to 30 amps. to 250 volts, 60 Hz AC. Accurately calibrated to carry 100% of rated load and to trip at between 101% and 125% of load. Trip-timing at 200% of rated load is from 2 to 20 seconds. On heavy overloads, a spring-loaded iron piston moves instantly for immediate circuit interruption. Operation unaffected by ambient conditions. Terminals accept soldered, snap-on, crimped or screw connections. **Humidity Resistance:** per MIL-STD-202 and MIL-STD-170. **Dielectric Strength:** 1100 VDC. **Reset Time:** instantaneous. **Voltage Drop:** 1.5V at 1A or more. **Shock and Vibration:** tested per MIL-STD-202. **Operating Temperature:** −40°C to +85°C. **Insulation Resistance:** 100 megs at 500 VDC. Fungus resistant. **Shpg. Wt.** 1 oz.

SINGLE-POLE

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989-6528	511-201-101	1	12.30	9.84	8.22
989-6529	511-202-101	2	12.30	9.84	8.22
989-6532	511-205-101	5	12.30	9.84	8.22
989-6537	511-210-101	10	12.30	9.84	8.22
989-6541	511-215-101	15	12.30	9.84	8.22
989-6546	511-220-101	20	12.30	9.84	8.22
989-6556	511-230-101	30	12.30	9.84	8.22

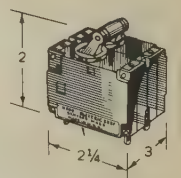
Single-Pole



TWO-POLE

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989-6583	518-202-101	2	21.43	18.22	17.06
989-6586	518-205-101	5	21.43	18.22	17.06
989-6591	518-210-101	10	21.43	18.22	17.06
989-6596	518-215-101	15	21.43	18.22	17.06
989-6601	518-220-101	20	21.43	18.22	17.06
989-6611	518-230-101	30	21.43	18.22	17.06

Two-Pole



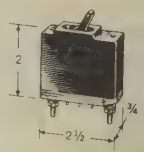
MAGNETIC TYPE CIRCUIT BREAKERS

For 60 Hz AC, up to 250 V. Will carry 100% of rated load indefinitely, with ultimate trip at 125%. Trip time 5 seconds at 200%. Interrupts over 1000 amps at 250 volts AC.

A MODEL 122 SINGLE-POLE AC TYPE

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989-6180	122-202-101	2	13.33	10.66	7.56
989-6181	122-203-101	3	13.33	10.66	7.56
989-6183	122-205-101	5	13.33	10.66	7.56
989-6188	122-210-101	10	13.33	10.66	7.56
989-6193	122-215-101	15	13.33	10.66	7.56
989-6198	122-220-101	20	13.33	10.66	7.56
989-6204	122-225-101	25	13.33	10.66	7.56
989-6210	122-230-101	30	13.33	10.66	7.56

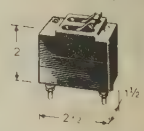
A



B MODEL 190 TWO-POLE AC TYPE

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989-6338	190-203-101	3	23.05	19.60	18.35
989-6346	190-210-101	10	23.05	19.60	18.35
989-6351	190-215-101	15	23.05	19.60	18.35
989-6356	190-220-101	20	23.05	19.60	18.35
989-6366	190-230-101	30	23.05	19.60	18.35

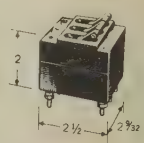
B

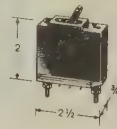


C MODEL 220 THREE-POLE AC TYPE

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989-6440	220-230-101	30	35.42	30.12	28.21

C





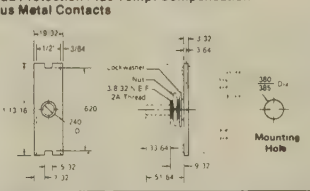
MODEL 130 SINGLE-POLE DC TYPE

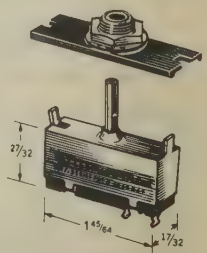
Includes switch for auxiliary circuit. Carries 100% of rated load indefinitely, with ultimate trip at 120%. Tripping time at 200%, approximately 15 milliseconds. Interruptions over 2000 amps at 50 volts DC. Size ½"x2x2½". Shpg. wt. 4½ oz.

Stock No.	Mfr's Type	Amps	EACH 1-4	5-9	10-Up
989-6260	130-203-101	3	13.27	10.45	9.38
989-6262	130-205-101	5	13.27	10.45	9.38
989-6273	130-215-101	15	13.27	10.45	9.38
989-6290	130-230-101	30	13.27	10.45	9.38
989-6310	130-250-101	50	13.27	10.45	9.38

MANUAL RESET CIRCUIT BREAKERS

- **Overload Protection Plus Temp. Compensation**
- **Precious Metal Contacts**





Stock No.	Mfrs. Types Mallory	Littelfuse	Workman	Hold (Amps)	Trip (Amps)	Each 1-5	6-9	10-Up
845-0501	UL0875	815 650	—	049	86	1.81	1.45	1.21
845-0502	UL105	815 800	FA1	60	1 05	1.81	1.45	1.21
845-0505	UL175	81501.5	FA1 5	1 00	1 75	1.81	1.45	1.21
845-0506	UL219	8151 75	FA2	1 20	2 10	1.31	1.05	.88
845-0508	UL263	8152 25	FA2 5	1 50	2 62	1.31	1.05	.88
845-0510	UL350	8152 75	FA3	1 92	3 33	1.31	1.05	.88
845-0511	UL394	815003	—	2 10	3 67	1.31	1.05	.88
845-0513	UL438	815004	FA4	2.50	4.37	1.31	1.05	.88
845-0514	UL525	81504.5	FA4.5	3.00	5.25	1.31	1.05	.88
845-0517	—	815007	—	4.14	7.25	1.31	1.05	.88
845-0520	CBB	81500PA	Adapter Plate			.29	.24	.20

UL listed — hold current ratings of 0.65-1.0 rated 15A short circuit; 1.2 and up rated 50A short circuit. Order Adapter plate separately (see Table).

Relay Quick Index and Cross References

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- Potter & Brumfield 142
- Struthers-Dunn 140

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CROSS-REFERENCE GUIDE OF ALLIED TYPES TO OTHER MANUFACTURERS

ENCLOSED PLUG-IN TYPES					ENCLOSED BRACKET MOUNTED TYPES				
Allied Type	Contact Action	P & B	Sigma	Struthers Dunn	Allied Type	Contact Action	P & B	Sigma	Struthers Dunn
ASD461-9	SPDT	KUP5A15	68R1	283XAXC	ASD491-9	SPDT	KNP5A55	68R14	283XAXC1
ASD471-9	DPDT	KUP11A15	68R2	283XBXC	ASD501-9	DPDT	KNP11A55	58R24	283XBXC1
ASD481-9	3PDT	KUP14A15	68R3	283XCXC	ASD511-9	3PDT	KNP14A55	68R34	283XCXC1
OPEN 6-32 TAPPED HOLE TYPES					OPEN 6-32 STUD MOUNTED TYPES				
ASD401-9	SPDT	KU5A35	.....	283XAX	ASD431-9	SPDT	KU5A15	.....	283XAXS
ASD411-9	DPDT	KU11A35	.....	283XBX	ASD441-9	DPDT	KU11A15	.....	283XBXS
ASD421-9	3PDT	KU14A35	.....	283XCX	ASD451-9	3PDT	KU14A15	.....	283XCXS

CROSS-REFERENCE GUIDE—C. P. CLARE/POTTER AND BRUMFIELD

C.P. Clare	Potter & Brumfield	Coil Volts	C.P. Clare	Potter & Brumfield	Coil Volts	C.P. Clare	Potter & Brumfield	Coil Volts	C.P. Clare	Potter & Brumfield	Coil Volts	C.P. Clare	Potter & Brumfield	Coil Volts
GP1R11A0000	KHU17A11	6VAC	GP3R211AD1000	KUP5D15	12VDC	GP3R231AA6000	KUP14A15	120VAC	GP3R221NA0000	KUP11A55	6VAC	GP3R231ND1000	KUP14D55	12VDC
GP1R11A1000	KHU17A11	12VAC	GP3R211AD2000	KUP5D15	24VDC	GP3R231AA7000	KUP14A15	240VAC	GP3R221NA1000	KUP11A55	12VAC	GP3R231ND2000	KUP14D55	24VDC
GP1R11A2000	KHU17A11	24VAC	GP3R211AD5000	KUP5D15	110VDC	GP3R231AD0000	KUP14D15	6VDC	GP3R221NA2000	KUP11A55	24VAC	GP3R231ND5000	KUP14D15	110VDC
GP1R11A6000	KHU17A11	120VAC	GP3R221AA0000	KUP11A15	6VAC	GP3R231AD1000	KUP14D15	12VDC	GP3R221NA6000	KUP11A55	120VAC	VP2CAB12	F10-E1-Y2-V185	.....
GP1R11D0000	KNU17D11	6VDC	GP3R221AA1000	KUP11A15	12VAC	GP3R231AD2000	KUP14D15	24VDC	GP3R221NA7000	KUP11A55	240VAC	VP4CAB12	R10-E1-Y4-V185	.....
GP1R11D1000	KNU17D11	12VDC	GP3R221AA2000	KUP11A15	24VAC	GP3R231AD5000	KUP14D15	110VDC	GP3R221ND0000	KUP11D15	6VDC	VP6CAB12M	R10-E1-Y6-V90	.....
GP1R11D2000	KNU17D11	24VDC	GP3R221AA6000	KUP11A15	120VAC	GP3R211NA0000	KUP5A55	6VAC	GP3R221ND1000	KUP11D55	12VDC	VP2CAB26	R10-E1-Y2-V700	.....
GP1R11D3000	KNU17D11	48VDC	GP3R221AA7000	KUP11A15	240VAC	GP3R211NA1000	KUP5A55	12VAC	GP3R221ND2000	KUP11D55	24VDC	VP4CAB26	R10-E1-Y4-V700	.....
GP1R11D5000	KNU17D11	110VDC	GP3R221AD0000	KUP11D15	6VDC	GP3R211NA2000	KUP5A55	24VAC	GP3R221ND5000	KUP11D55	110VDC	VP6CAB6M	R10-E1-X6-V430	.....
GP3R211AA0000	KUP5A15	6VAC	GP3R221AD1000	KUP11D15	12VDC	GP3R211NA6000	KUP5A55	120VAC	GP3R231NA0000	KUP14A55	6VAC	VP2CAB47	R10-E1-X2-V2.5K	.....
GP3R211AA1000	KUP5A15	12VAC	GP3R221AD2000	KUP11D15	24VDC	GP3R211NA7000	KUP5A55	240VAC	GP3R231NA1000	KUP14A55	12VAC	VP4CAB47	R10-E1-X4-V2.5K	.....
GP3R211AA2000	KUP5A15	24VAC	GP3R221AD5000	KUP11D15	110VDC	GP3R211ND0000	KUP5D55	6VDC	GP3R231NA2000	KUP14A55	24VAC	VP6CAB47M	R10-1E-Y6-V1.5K	.....
GP3R211AA6000	KUP5A15	120VAC	GP3R231AA0000	KUP14A15	6VAC	GP3R211ND1000	KUP5D55	12VDC	GP3R231NA6000	KUP14A55	120VAC	VP2ACB120	R10-E1-Y2-V15.OK	.....
GP3R211AA7000	KUP5A15	240VAC	GP3R231AA1000	KUP14A15	12VAC	GP3R211ND2000	KUP5D55	24VDC	GP3R231NA7000	KUP14A55	240VAC	VP4CAB120	R10-E1-Y4-V15-OK	.....
GP3R211AD0000	KUP5D15	6VDC	GP3R231AA2000	KUP14A15	24VAC	GP3R211ND5000	KUP5D55	110VDC	GP3R231ND0000	KUP14D55	6VDC	VP6CAB120M	R10-E1-Y6-V9.OK	.....

CROSS-REFERENCE GUIDE-SOLENOIDS

Allied Stock No.	Guardian Part No.	Dormeyer Part No.
802-1130	22-Cont Duty-120VAC	B19-1-A-3
802-1113	22-Cont Duty-24VDC	B19-253-A-3
802-0565	T6X12-Cont Duty-12VDC	P4-1L
802-0566	T6X12-Cont Duty-24VDC	P4-2L
802-0568	T6X12-Int Duty-24VDC	P4-102L
802-0573	T8X16-Cont Duty-12VDC	P6-1L
802-0574	T8X16-Cont Duty-24VDC	P6-2L
802-1090	16-Cont Duty-120VAC	1000-M-1
802-1094	16-Int Duty-120VAC	1500-M-1
802-1100	18-Cont Duty-120VAC	2005-M-1
802-1104	18-Int Duty-120VAC	2255-M-1

CROSS-REFERENCE GUIDE—TIME DELAY RELAYS

Allied Stock No.	Potter & Brumfield	Magnecraft	C. P. Clare
886-0053	CDB38-70003	W213ACPSOX-7	
886-0055	CDB38-70005	W213ACPSOX-9	
886-0090	CHB38-70001	W211ACPSOX-5	TLMAIA0010
886-0091	CHB38-70003	W211ACPSOX-7	TLMAIA0180
886-0082	CHB38-70011	W211ACPSRX-5	TLBRIA0010
886-0083	CHB38-70013	W211ACPSRX-7	TLBRIA0180
886-0148	CUF41-70010	W388ACPSOX-1	
886-0149	CUF41-70120	W388ACPSOX-2	
886-0153	CUF42-70010	W388ACQSOX-1	
886-0154	CUF42-70120	W388ACQSOX-2	
886-0157	CUH41-30010	W388CPSOX-1	
886-0162	CUH42-30120	W388CQSOX-2	

See Page 147 for a Complete Selection of Relay Sockets

Cross Reference and Allied® Relays

Allied Stock No.	P/B	Sigma	Magnecraft
886-0670	KRP5A-6V	50R01-6AC	W88ACPX-1
886-0672	KRP5A-24V	50R01-24AC	W88ACPX-3
886-0673	KRP5A-120V	50R01-115AC	W88ACPX-4
886-0676	KRP5AG-24V	50R01-24AC-SCO	W88ACPX-3
886-0677	KRP5AG-120V	50R01-115AC-SCO	W88ACPX-4
886-0679	KRP5D-6V	50R01-6DC	W88CPX-1
886-0680	KRP5D-12V	50R01-12DC	W88CPX-2
886-0681	KRP5D-24V	50R01-24DC	W88CPX-3
886-0688	KRP5DG-110V	50R01-110DC-SCO	W88-CPX-4
886-0690	KRP11A-6V	50R02-6AC	W88ACPX-5
886-0691	KRP11A-12V	50R02-12AC	W88ACPX-6
886-0692	KRP11A-24V	50R02-24AC	W88ACPX-7
886-0693	KRP11A-120V	50R02-115AC	W88ACPX-8
886-0694	KRP11A-240V	50R02-230AC	W88ACPX-32
886-0695	KRP11AG-6	50R02-6AC-SCO	W88ACPX-5
886-0696	KRP-11AG-12	50R02-12AC-SCO	.....
886-0697	KRP11AG24	50R02-24AC-SCO	W88ACPX-7
886-0698	KRP11AG-120	50R02-115AC-SCO	W88ACPX-8
886-0699	KRP11AG-240	50R02-230AC-SCO	W88ACPX-32
886-0705	KRP11D-6V	50R02-6DC	W88ACPX-5
886-0706	KRP11D-12V	50R02-12DC	W88CPX-6
886-0707	KRP11D-24V	50R02-24DC	W88CPX-7
886-0708	KRP11D-110V	50R02-110DC	W88CPX-8
886-0709	KRP11DG-6V	50R02-6DC-SCO	W88CPX-5
886-0710	KRP11DG-12V	50R02-12DC-SCO	W88CPX-6
886-0711	KRP11DG-24V	50R02-24DC-SCO	W88CPX-7
886-0712	KRP11DG-110V	50R02-110DC-SCO	W88CPX-8
886-0717	KRP14A-12V	50R03-12AC	W88ACPX-10
886-0718	KRP14A-24V	50R03-24AC	W88ACPX-11
886-0719	KRP14A-120V	50R03-115AC	W88ACPX-12
886-0721	KRP14AG-6V	50R03-6AC-SCO	W88ACPX-9
886-0722	KRP14AG-12V	50R03-12AC-SCO	W88ACPX-10
886-0723	KRP14AG-24V	50R03-24AC-SCO	W88ACPX-11
886-0724	KRP14AG-115V	50R03-115AC-SCO	W88ACPX-12
886-0725	KRP14AG-230V	50R03-230AC-SCO	W88ACPX-39
886-0728	KRP14D-6V	50R03-6DC	W88CPX-9
886-0729	KRP14D-12V	50R03-12DC	W88CPX-10
886-0730	KRP14D-24V	50R03-24DC	W88CPX-11
886-0736	KRP14DG-12V	50R03-12DC-SCO	W88CPX-10
886-0737	KRP14DG-24	50R03-24DC-SCO	W88CPX-11
886-0738	KRP14DG-110V	50R03-110DC-SCO	W88CPX-12
886-0701	KRP11AN-12V	50R0L2-12AC-SCO	.....
886-0702	KRP11AN-24V	50R0L2-24AC-SCO	.....
886-0703	KRP11AN-120V	50R0L2-115AC-SCO	W88ANCPX-2
886-0704	KRP11AN-240V	50R0L2-230AC-SCO	.....

Allied Stock No.	P/B	Sigma	Magnecraft
886-0713	KRP11DN-12V	50R0L2-12DC-SCO	.....
886-0714	KRP11DN-24V	50R0L2-24DC-SCO	.....
886-0715	KRP11DN-110V	50R0L2-110DC-SCO	.....
886-0726	KRP14AN-120V	50R0L3-115AC-SCO	W88ANCPX-3
886-0727	KRP14AN-240V	50R0L3-230AC-SCO	.....
886-0774	KUP5D15-6DC	68R1-6DC-SCO	W388CPX-1
886-0775	KUP5D15-12DC	68R1-12DC-SCO	W388CPX-2
886-0776	KUP5D15-24DC	68R1-24DC-SCO	W388CPX-3
886-0778	KUP11A15-6AC	68R2-6AC-SCO	W388ACPX-6
886-0779	KUP11A15-12AC	68R2-12AC-SCO	W388ACPX-7
886-0780	KUP11A15-24AC	68R2-24AC-SCO	W388ACPX-8
886-0781	KUP11A15-120AC	68R2-115AC-SCO	W388ACPX-9
886-0782	KUP11A15-240AC	68R2-230AC-SCO	W388ACPX-10
886-0784	KUP11D15-12DC	68R2-12DC-SCO	W388-CPX-6
886-0785	KUP11D15-24DC	68R2-24DC-SCO	W388CPX-7
886-0786	KUP11D15-110DC	68R2-110DC-SCO	W388CPX-8
886-0788	KUP14A15-120AC	68R3-115AC-SCO	W388ACPX-14
886-0789	KUP14A15-240AC	68R3-230AC-SCO	W388ACPX-15
886-0790	KUP14D15-6DC	68R3-6DC-SCO	W388CPX-9
886-0791	KUP14D15-12DC	68R3-12DC-SCO	W388CPX-10
886-0792	KUP14D15-24DC	68R3-24DC-SCO	W388CPX-11
886-0793	KUP14D15-110DC	68R3-110DC-SCO	W388CPX-12
886-0800	KUP14A55-6V	68R34-6AC-SCO	W388ACQX-11
886-0802	KUP14A55-24V	68R34-24AC-SCO	W388ACQX-13
886-0803	KUP14A55-120V	68R34-115AC-SCO	W388ACQX-14
886-0804	KUP14A55-240V	68R34-230AC-SCO	W388ACQX-15
886-0806	KUP14D55-12V	68R34-12DC-SCO	W388CQX-10
886-0807	KUP14D55-24V	68R34-24DC-SCO	W388CQX-11
886-0808	KUP14D55-110V	68R34-110DC-SCO	W388CQX-12
886-0381	KA5AY-12V	50F1-12AC	W588AX-2
886-0382	KA5AY-24V	50F1-24AC	W588AX-3
886-0383	KA5AY-120V	50F1-115AC	W588AX-4
886-0378	KA5AG-120V	50F1-115AC-SCO	W588AX-16
886-0386	KA5DG-12	50F1-12DC-SCO	W588X-14
886-0387	KA5DG-24	50F1-24DC-SCO	W588X-15
886-0400	KA11AY-24	50F2-24AC	W588AX-7
886-0401	KA11AY-120	50F2-115AC	W588AX-8
886-0395	KA11AG-24	50F2-24AC-SCO	W588AX-19
886-0396	KA11AG-120	50F2-115AC-SCO	W588AX-20
886-0408	KA11DY-12V	50F2-12DC	W588X-6
886-0409	KA11DY-24V	50F2-24DC	W588X-7
886-0404	KA11DG-12V	50F2-12DC-SCO	W588X-18
886-0405	KA11DG-24V	50F2-24DC-SCO	W588X-19
886-0419	KA14AY-120V	50F3-115AC	W588AX-12
886-0423	KA14AG-24V	50F3-24AC-SCO	W588AX-23

Allied Stock No.	P/B	Sigma	Magnecraft
886-0424	KA14AG-120V	50F3-115AC-SCO	W588AX-24
886-0426	KA14DY-12V	50F3-12DC	W588X-10
886-0427	KA14DY-24V	50F3-24DC	W588X-11
886-0423	KA14DG-24	50F3-24DC-SCO	W588X-23
886-0424	KA14DG-110DC	50F3-110DC-SCO	.....
886-0431	KAP5AG-24V	50R01-24AC-SCO	W588ACPX-15
886-0432	KAP5AG-120	50R01-115AC-SCO	W588ACPX-16
.....	KAP5DG-24V	50R01-24DC-SCO	W588CPX-15
886-0444	KAP11AY-24V	50R02-24AC	W588ACPX-7
886-0445	KAP11AY-120V	50R02-115AC	W588ACPX-8
886-0441	KAP11AG-24V	50R02-24AC-SCO	W588ACPX-19
886-0442	KAP11AG-120V	50R02-115AC-SCO	W588ACPX-20
886-0450	KAP11DG-24V	50R02-24DC-SCO	W588CPX-19
886-0454	KAP11DY-12V	50R02-12DC	W588CPX-6
886-0455	KAP11DY-24V	50R02-24DC	W588CPX-7
886-0465	KAP14AY-120V	50R03-115AC	W588ACPX-12
886-0460	KAP14AG-24V	50R03-24AC-SCO	W588ACPX-23
886-0461	KAP14AG-120	50R03-115AC-SCO	W588ACPX-24
886-0470	KAP14DG-24	50R03-24DC	W588CPX-23
886-0476	KAP14DY-24	50R03-24DC-SCO	W588CPX-11
886-0577	KHU17A11-24	67R4-24AC	.....
886-0578	KHU17A11-120V	67R4-115AC	.....
886-0581	KHU17D11-12V	67R4-12DC	.....
886-0582	KHU17D11-24V	67R4-24DC	.....
886-0585	KHU17D11-110V	67R4-110DC	.....
886-0588	KHU17D12-24V	67RV4-24DC-SCO	.....
886-0547	KHP17A11-24V	67R4-24AC	.....
886-0548	KHP17A11-120V	67R4-115AC	.....
886-0551	KHP17D11-12	67R4-12DC	.....
886-0552	KHP17D11-24	67R4-24DC	.....
886-0555	KHP17D11-110V	67R4-110DC	.....
886-0557	KHP17D11-24V	67RV4-24DC-SCO	.....
886-1105	R10-E1-Z2-V700	W67TCSX-3	62R2T-24DC
886-1070	R10-E1-Y2-J25K	W67SCSX-2	62R2S-2500
886-1075	R10-E1-Y2-V185	W67CSX-2	62R2-12DC
886-1076	R10-E1-Y2-V700	W67CSX-3	62R2-24DC
886-1089	R10-E1-Y4-V150K	W67CSX-10	62R4-110DC
886-1057	R10-E1-X6-V430	W67CSX-13	62R6-24DC
886-1050	R10-E1-X2-V185	W67RCSX-2	62R2-12DC-SCO
886-1051	R10-E1-X2-V700	W67RCSX-3	62R2-24DC-SCO
886-1052	R10-E1-X4-V52	W67RCSX-6	62R4-6DC-SCO
886-1087	R10-E1-Y4-V700	W67CSX-8	62R2-110DC
886-1053	R10-E1-X4-V185	W67RCSX-7	62R4-12DC-SCO
886-1054	R10-E1-X4-V700	W67RCSX-8	62R4-24DC-SCO

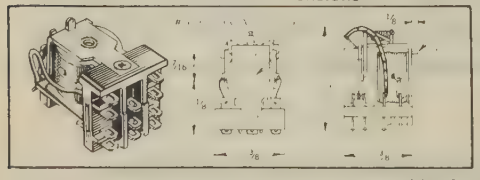
Allied® Tapped and Bracket-Mount Relays

General-purpose industrial relays designed for high reliability, excellent packaging density and best cost-to-quality relationships. 10-amp contacts for use in delicate instruments, logic circuits, as well as controlling heating elements, solenoid valves, small motors, machine tools, elevator controls, office machines, copy and vending devices. One, two and three-pole contact combinations are available in open and enclosed styles. Clear polycarbonate covers are used on enclosed types. Have 0.187" flat male terminals, quick-connect type, pierced to accommodate solder wiring and spaced for standard plug-in mounting. U.L. Recognized. Life Expectancy: 10 million mechanical operations minimum (without load); 100,000 operations minimum at rated load. Operating Speed: 15 milliseconds and 10 milliseconds release, cont. duty. 3 oz.

AVAILABLE ONLY IN VOLTAGES INDICATED

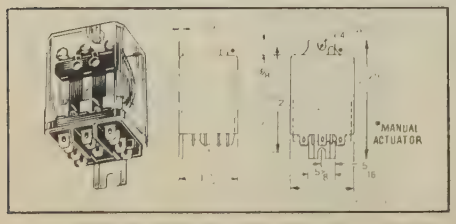
OPEN CONSTRUCTION TAPPED 6-32 HOLES

Construction and Dimensions



Stock No.	Allied Type No. ASD-	Voltage	Contact Action	EACH 1-24	25-49	50-99	100-up
654-0404	404	120 VAC	SPDT	5.07	4.05	3.65	3.19
654-0413	413	24 VAC	DPDT	6.18	4.94	4.44	3.89
654-0414	414	120 VAC	DPDT	6.18	4.94	4.44	3.89

ENCLOSED CONSTRUCTION BRACKET MOUNTED



Stock No.	Allied Type No. ASD-	Voltage	Contact Action	EACH 1-24	25-49	50-99	100-up
654-0493	493	24 VAC	SPDT	4.60	4.14	3.72	3.35
654-0494	494	120 VAC	SPDT	4.60	4.14	3.72	3.35
654-0498	498	24 VDC	SPDT	4.42	3.97	3.58	3.22
654-0502	502	12 VAC	DPDT	5.62	4.97	4.47	4.02
654-0503	503	24 VAC	DPDT	5.62	4.97	4.47	4.02
654-0504	504	120 VAC	DPDT	5.62	4.97	4.47	4.02
654-0507	507	12 VDC	DPDT	5.05	4.45	4.00	3.60
654-0508	508	24 VDC	DPDT	5.05	4.45	4.00	3.60
654-0514	514	120 VAC	3PDT	6.30	5.58	5.02	4.51
654-0515	515	240 VAC	3PDT	6.70	5.98	5.38	4.84
654-0517	517	12 VDC	3PDT	5.70	5.06	4.55	4.10
654-0518	518	24 VDC	3PDT	5.70	5.06	4.55	4.10

Allied® General-Purpose Relays

RELAYS

SPECIFICATIONS

CONTACT RATINGS: 10 Amperes at 120 Volts AC or 32 Volts DC, non-inductive loads

CONTACT MATERIAL: Silver alloy, gold-flashed

COILS: AC or DC; Nylon bobbins, sealed with a fused wrap; coil leads are braided pigtails

INSULATION: 1500 Volts RMS between circuits and between circuits and frame

LIFE EXPECTANCY: exceeds 5 million operations

MOUNTING: Open Types, single hole, tapped 6-32 stud; Enclosed Types, SPDT and DPDT, standard 8-pin octal plug; 3PDT, 11-pin plug

COLOR CODING: 12 VAC, Red; 24 VAC, Green; 120 VAC, White; 12 VDC, Blue; 24 VDC, Yellow; 120 VDC, Black; PLATE CIRCUIT TYPES, Brown

- **Compare—Get Same or Better Quality at Lower Prices**
- **Color-Coding for Voltage and AC, DC, or Plate Circuit Helps on Production Line and Shows Inventory at a Glance**
- **Open Types U.L. Component Program Recognized**
- **Special Price Quotations on Large-Quantity Requirements**

Allied's own relays are equally at home in the control box of an elevator or in the heart of a computer—anywhere you need light-duty power control circuits. See the Cross Reference/Interchangeability Table at bottom of page that lists the many popular types that these cost-saving relays replace *without* any sacrifice in quality or performance. All relays have Nylon bobbins, shock-resistant armature mounting and corrosion-resistant coil.

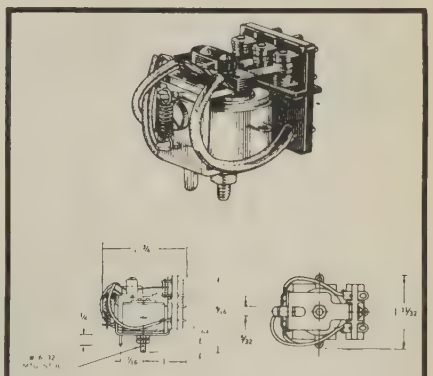
Open types are U.L. Component-Program Recognized and have 6-32 stud mounting. The 8 and 11-pin plug-in types provide protection from dust and oil, speedy plug-in connection and foolproof replacement. All relays are color-coded for voltage and AC, DC or Plate Circuit types by means of colored coil tape. Shpg. wt.: Open types, 2 oz.; enclosed types, 3 oz. **NOTE: All relays ordered in multiples of 50 will generally be shipped bulk in handy production-line packaging.**

General-Purpose Open Type Relays

SINGLE POLE DOUBLE THROW TYPES (SPDT)

All Color-Coded for Voltage and AC, DC or Plate Circuit Types by Means of Colored Coil Tape

Stock No.	Allied Type No.	Coil Voltage /Imp.	Contact Action	Coil mA	Coil Ohms	Color Code*	EACH 1-9	10-49	50-499	500-Up
703-1000	KN100-1C-12A	12 AC	SPDT	170	20	Red	6.05	4.53	3.08	2.00
703-1001	KN100-1C-24A	24 AC	SPDT	85	75	Green	6.05	4.53	3.08	2.00
703R1002	KN100-1C-120A	120A C	SPDT	35	1500	White	6.05	4.53	3.08	2.00
703-1014	KN105-1C-12D	12 DC	SPDT	80	150	Blue	5.82	4.36	2.96	2.00
703-1015	KN105-1C-24D	24 DC	SPDT	40	600	Yellow	5.82	4.36	2.96	2.00
DOUBLE POLE DOUBLE THROW TYPES (DPDT)										
703-1005	KN100-2C-12A	12 AC	DPDT	170	20	Red	7.43	5.57	3.77	2.48
703-1006	KN100-2C-24A	24 AC	DPDT	85	75	Green	7.43	5.57	3.77	2.48
703R1007	KN100-2C-120A	120 AC	DPDT	35	1500	White	7.43	5.57	3.77	2.48
703R1018	KN105-2C-12D	12 DC	DPDT	80	150	Blue	6.63	4.97	3.36	2.26
703R1019	KN105-2C-24D	24 DC	DPDT	40	600	Yellow	6.63	4.97	3.36	2.26
703-1020	KN105-2C-120D	120 DC	DPDT	11	10000	Black	7.74	5.90	3.93	2.58
THREE POLE DOUBLE THROW TYPES (3PDT)										
703-1011	KN100-3C-120A	120 AC	3PDT	35	1500	White	8.23	5.76	4.17	2.82
703-1023	KN105-3C-24D	24 DC	3PDT	40	600	Yellow	7.49	5.24	3.81	2.66

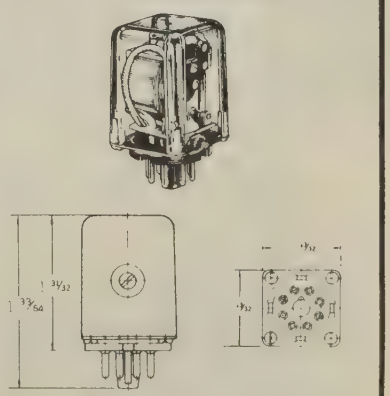


Open Type,
Single Hole
6-32 Stud Mounting

General-Purpose Enclosed Type Relays

SINGLE POLE DOUBLE THROW TYPES (SPDT) 8-PIN PLUG-IN

Stock No.	Allied Type No.	Coil Voltage /Imp.	Contact Action	Coil mA	Coil Ohms	Color Code*	EACH 1-9	10-49	50-499	500-Up
703-1026	KN110-1C-12A	12 AC	SPDT	170	20	Red	10.43	7.30	5.27	3.38
703R1027	KN110-1C-24A	24 AC	SPDT	85	75	Green	10.43	7.30	5.27	3.38
703R1028	KN110-1C-120A	120 AC	SPDT	35	1500	White	10.43	7.30	5.27	3.38
703R1039	KN115-1C-12D	12 DC	SPDT	80	150	Blue	10.31	7.22	5.22	3.35
703-1040	KN115-1C-24D	24 DC	SPDT	40	600	Yellow	10.31	7.22	5.22	3.35
DOUBLE POLE DOUBLE THROW TYPES (DPDT) 8-PIN PLUG-IN										
703-1031	KN110-2C-12A	12 AC	DPDT	170	20	Red	11.67	8.17	6.01	3.84
703R1032	KN110-2C-24A	24 AC	DPDT	85	75	Green	11.67	8.17	6.01	3.84
703R1033	KN110-2C-120A	120 AC	DPDT	35	1500	White	11.67	8.17	6.01	3.84
703R1043	KN115-2C-12D	12 DC	DPDT	80	150	Blue	11.58	8.10	5.98	3.86
703R1044	KN115-2C-24D	24 DC	DPDT	40	600	Yellow	11.58	8.10	5.98	3.86
703-1045	KN115-2C-120D	120 DC	DPDT	11	10000	Black	12.71	8.90	6.43	4.25
703-1048	KN115-2C-2.5K	2500 Ohms	DPDT	10	2500	Brown	11.76	8.23	5.95	3.86
703-1049	KN115-2C-5K	5000 Ohms	DPDT	7	5000	Brown	11.93	8.35	6.04	3.88
703-1050	KN115-2C-10K	10000 Ohms	DPDT	5	10000	Brown	12.62	8.83	6.40	4.10
THREE POLE DOUBLE THROW TYPES (3PDT) 11-PIN PLUG-IN										
703R1035	KN110-3C-120A	120 AC	3PDT	35	1500	White	9.78	8.19	7.37	4.78
703R1053	KN115-3C-24D	24 DC	3PDT	40	600	Yellow	9.24	8.10	7.29	4.75



Enclosed Type,
8 or 11-Pin,
Plug Mounting

13

CROSS REFERENCE/INTERCHANGEABILITY GUIDE TO OTHER POPULAR MANUFACTURERS

GENERAL-PURPOSE OPEN TYPE RELAYS

Allied	P & B	Guardian	Magnecraft	Phillips Advance	Comar	Line	Milwaukee	Omega	Ohmite
KN100	KA/KAG	IR-1200	W88AX	GHA, GHB	M	MK/MKO	100	100	GR
KN105	KA/KAG	IR-1205	W88X	GHA, GHB	M	MK/MKO	100	250	GR

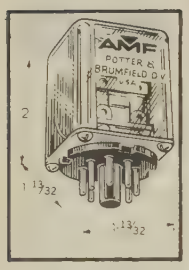
GENERAL-PURPOSE ENCLOSED TYPE RELAYS

KN110	KRP/KRP-G	IR-1210	W88ACPX	GHP, GHH	M	MKH, MKP	105	200-PC	GRTP
KN115	KRP/KRP-G/KCP	IR-1215	W88CPX	GHP, GHH	M	MKH, MKP	105	200-PC	GRTP

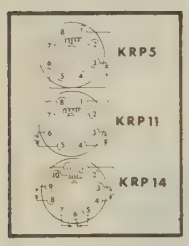
General Purpose Relays

SERIES KRP AND KRP-N ENCLOSED RELAYS

Transparent Plug-in Case—Weatherproof and Dustproof



General-purpose relays are enclosed in high-impact transparent, cellulose acetate case. Dust and weather proofed. Coil power at 25°C: DC—100 mW minimum, 4 watts maximum; AC—2 volt-amperes. Temperature range: –45°C minimum; AC types to +70°C maximum; DC to +85°C maximum. Operate time (approx.): 15 msec; release time: 10 msec. Life: 10 million cycles. Insulation resistance: 1000 meg-ohms minimum. Breakdown: 500 V rms, 60 Hz. Shock: 30g.



***KRP-N Series** includes a lamp to indicate current or voltage availability in power circuits. Lamp lights when coil is energized. Types KRP5 and KRP11 plug into standard octal socket; KRP14 plugs into 11-pin socket. Hold-down springs and socket information are on page 147. Coil Data Chart at right ..... Size: both series, 1 13/32 x 1 13/32 x 2". Av. shpg. wt. 5 oz. **Ask for prices in quantities of 100-Up.**

5 AMPERES

Stock No.	Mfr's Type KRP-	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0670	5A	6 AC	SPDT	11.18	7.45	7.08	6.71
886-0672	5A	24 AC	SPDT	11.18	7.45	7.08	6.71
886R0673	5A	120 AC	SPDT	11.18	7.45	7.08	6.71
886-0679	5D	6 DC	SPDT	11.10	7.40	7.03	6.66
886-0680	5D	12 DC	SPDT	11.10	7.40	7.03	6.66
886-0681	5D	24 DC	SPDT	11.10	7.40	7.03	6.66
886-0690	11A	6 AC	DPDT	12.46	8.30	7.89	7.47
886-0691	11A	12 AC	DPDT	12.46	8.30	7.89	7.47
886-0692	11A	24 AC	DPDT	12.46	8.30	7.89	7.47
886R0693	11A	120 AC	DPDT	12.46	8.30	7.89	7.47
886-0694	11A	240 AC	DPDT	13.28	8.85	8.41	7.97
886-0705	11D	6 DC	DPDT	12.38	8.25	7.84	7.43
886-0706	11D	12 DC	DPDT	12.38	8.25	7.84	7.43
886R0707	11D	24 DC	DPDT	12.38	8.25	7.84	7.43
886-0708	11D	110 DC	DPDT	13.66	9.10	8.65	8.19
886-0717	14A	12 AC	3PDT	12.93	10.35	9.83	9.32
886-0718	14A	24 AC	3PDT	12.93	10.35	9.83	9.32
886R0719	14A	120 AC	3PDT	12.93	10.35	9.83	9.32
886-0728	14D	6 DC	3PDT	12.81	10.25	9.74	9.23
886-0729	14D	12 DC	3PDT	12.81	10.25	9.74	9.23
886-0730	14D	24 DC	3PDT	12.81	10.25	9.74	9.23

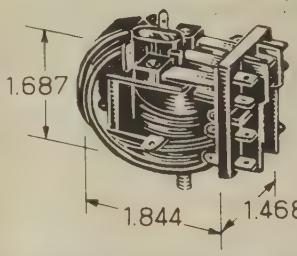
10 AMPERES

Stock No.	Mfr's Type KRP-	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0676	5AG	24 VAC	SPDT	11 56	7 70	7 32	6.93
886-0677	5AG	120 VAC	SPDT	11 56	7 70	7 32	6.93
886-0688	5DG	110 DC	SPDT	12 68	8 45	8.03	7.61
886-0695	11AG	6 AC	DPDT	12 90	7 70	7 32	6.93
886-0696	11AG	12 AC	DPDT	12 90	7 70	7 32	6.93
886-0701	*11AN	12 AC	DPDT	12 50	9 85	9 36	8 87
886-0697	11AG	24 AC	DPDT	12 90	7 70	7 32	6.93
886-0702	*11AN	24 AC	DPDT	12.50	9 85	9 36	8 87
886R0698	11AG	120 AC	DPDT	12 90	7 70	7 32	6.93
886R0703	*11AN	120 AC	DPDT	12 50	9 85	9 36	8 87
886-0699	11AG	240 AC	DPDT	13.72	9.15	8.69	8.24
886-0704	*11AN	240 AC	DPDT	12.99	10.40	9 88	9.36
886-0709	11DG	6 DC	DPDT	12.82	8.55	8.12	7.70
886R0710	11DG	12 DC	DPDT	12 82	8.55	8.12	7.70
886-0713	*11DN	12 DC	DPDT	12.45	9 70	9.22	8.73
886R0711	11DG	24 DC	DPDT	12.82	8.55	8.12	7.70
886-0714	*11DN	24 DC	DPDT	12.45	9 70	9.22	8.73
886R0712	11DG	110 DC	DPDT	14.10	9 40	8 93	8.46
886-0715	*11DN	110 DC	DPDT	13.72	10.60	10.07	9.54
886-0721	14AG	6 AC	3PDT	13.38	10 70	10.17	9.63
886-0722	14AG	12 AC	3PDT	13 38	10 70	10.17	9.63
886-0723	14AG	24 AC	3PDT	13.38	10 70	10.17	9.63
886R0724	14AG	120 AC	3PDT	13.38	10.70	10.17	9.63
886R0726	*14AN	120 AC	3PDT	15.00	12.00	11.40	10.80
886-0725	14AG	240 AC	3PDT	14 33	11 30	10.74	10.17
886-0727	*14AN	240 AC	3PDT	15.63	12.50	11.88	11.25
886-0736	14DG	12 DC	3PDT	13.25	10.60	10.07	9.54
886-0737	14DG	24 DC	3PDT	13.25	10.60	10.07	9.54
886-0738	14DG	110 DC	3PDT	14.31	11.45	10.88	10.31

TYPE KA OPEN RELAYS

- **Open Relays for Light Power Loads**
- **Life Expectancy 10 Million Operations**
- **5 and 10 Amps, Continuous Contact Duty**

Open relays for light power loads. Movable contacts gold-flashed silver (10 amps, silver cadmium oxide). Stationary contacts: silver overlay. Relays with "Y" suffix are U.L. recognized and C.S.A. listed. Mechanical life expectancy: 10 million operations. Mounting: One No. 6-32 threaded stud and locating tab on .438" centers. Duty: continuous contacts. Av. shpg. wt. 4 oz.



Alec Electron

COIL DATA FOR KA, KAP AND KRP

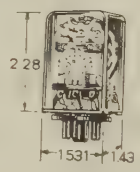
DC COILS Volts	Res., Ohms	mA	AC COILS Volts	Res., Ohms	mA
6	32	188	6	6	335
12	120	100	21	21	168
24	472	51	24	75	84
110	10k	11.5	120	2250	17.5
...	...	....	240	9110	8.75

5 AMPERES

Stock No.	Mfr's Type	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0380	KA5AY	6 AC	SPDT	8.35	4.45	4.23	4.01
886-0381	KA5AY	12 AC	SPDT	8.35	4.45	4.23	4.01
886-0382	KA5AY	24 AC	SPDT	8.35	4.45	4.23	4.01
886-0383	KA5AY	120 AC	SPDT	8.35	4.45	4.23	4.01
886-0398	KA11AY	6 AC	DPDT	10.12	5.40	5.13	4.86
886-0400	KA11AY	24 AC	DPDT	10.12	5.40	5.13	4.86
886-0401	KA11AY	120 AC	DPDT	10.12	5.40	5.13	4.86
886-0402	KA11AY	240 AC	DPDT	10.97	5.85	5.56	5.27
886-0407	KA11DY	6 DC	DPDT	8.83	4.70	4.47	4.23
886-0408	KA11DY	12 DC	DPDT	8.82	4.70	4.47	4.23
886-0409	KA11DY	24 DC	DPDT	8.82	4.70	4.47	4.23
886-0419	KA14AY	120 AC	3PDT	10.97	5.85	5.56	5.27
886-0426	KA14DY	12 DC	3PDT	10.02	5.35	5.08	4.82
886-0427	KA14DY	24 DC	3PDT	10.02	5.35	5.08	4.82
886-0428	KA14DY	110 DC	3PDT	11.53	6.15	5.84	5.54

10 AMPERES

Stock No.	Mfr's Type	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0378	KA5AG	120 AC	SPDT	8.45	4.50	4.28	4.05
886-0386	KA5DG	12 DC	SPDT	8.15	4.35	4.13	3.92
886-0387	KA5DG	24 DC	SPDT	8.15	4.35	4.13	3.92
886-0395	KA11AG	24 AC	DPDT	10.32	5.50	5.23	4.95
886-0396	KA11AG	120 AC	DPDT	10.32	5.50	5.23	4.95
886-0404	KA11DG	12 DC	DPDT	9.32	4.90	4.66	4.41
886-0405	KA11DG	24 DC	DPDT	9.20	4.90	4.66	4.41
886-0406	KA11DG	110 DC	DPDT	10.70	5.70	5.42	5.13
886-0412	KA14AG	12 AC	3PDT	11.35	6.05	5.75	5.45
886-0413	KA14AG	24 AC	3PDT	11.35	6.05	5.75	5.45
886-0414	KA14AG	120 AC	3PDT	11.35	6.05	5.75	5.45
886-0415	KA14AG	240 AC	3PDT	12.58	6.70	6.37	6.03
886-0423	KA14DG	24 DC	3PDT	10.40	5.55	5.27	5.00
886-0424	KA14DG	110 DC	3PDT	11.90	6.35	6.03	5.72
.....	...	...	...	...	...	...	...



TYPE KAP ENCLOSED RELAYS

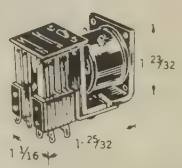
Enclosed relays (plastic dust cover) for light power loads. Contacts mechanical life duty and suffix "Y" same as Series KA above. SPDT, DPDT: 8 pin plugs. 3 PDT: 11 pin. Av. shpg. wt. 5 oz.

5 AMPERES

Stock No.	Mfr's Type	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0444	KAP11AY	24 AC	DPDT	10.45	8.35	7.93	7.52
886-0445	KAP11AY	120 AC	DPDT	10.45	8.35	7.93	7.52
886-0446	KAP11AY	240 AC	DPDT	11.09	8.85	8.41	7.97
886-0454	KAP11DY	12 DC	DPDT	10.40	8.30	7.89	7.47
886-0455	KAP11DY	24 DC	DPDT	10.40	8.30	7.89	7.47
886-0456	KAP11DY	110 DC	DPDT	11.45	9.15	8.69	8.24
886-0465	KAP14AY	120 AC	3PDT	12.96	10.35	9.83	9.32
886-0466	KAP14AY	240 AC	3PDT	13.53	10.80	10.26	9.72
886-0476	KAP14DY	24 DC	3PDT	12.84	10.25	9.74	9.23

10 AMPERES

Stock No.	Mfr's Type	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0431	KAP5AG	24 AC	SPDT	9.80	7.60	7.22	6.84
886-0432	KAP5AG	120 AC	SPDT	9.80	7.60	7.22	6.84
886-0441	KAP11AG	24 AC	DPDT	10.65	8.50	8.08	7.65
886R0442	KAP11AG	120 AC	DPDT	10.65	8.50	8.08	7.65
886-0450	KAP11DG	24 DC	DPDT	10.59	8.45	8.03	7.61
886-0451	KAP11DG	110 DC	DPDT	11.66	9.30	8.84	8.37
886-0460	KAP14AG	24 AC	3PDT	13.16	10.50	9.98	9.45
886-0461	KAP14AG	120 AC	3PDT	13.16	10.50	9.98	9.45
886-0470	KAP14DG	24 DC	3PDT	13.09	10.45	9.93	9.41



SERIES GA MULTIPLE-CONTACT RELAYS

For remote power switching, power control and general uses. Withstand mobile shock and vibration. Moisture resistant coil. 5A contacts. AC coils for 50/60 Hz. Power at 25°C: DC, 2W nominal, 6W max.; AC, 6 VA. Temp. range: –45°C; AC to +45°C. Pull-in: AC, 85% or less of nom. voltage; DC, 75% or less. Solder terminals. 1 1/16 x 1 23/32 x 1 25/32". 4 oz.

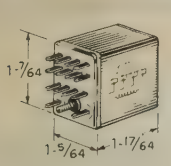
Stock No.	Mfr's Type	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0180	GA11A	24 AC	DPDT	10.77	6.15	5.84	5.54
886-0181	GA11A	120 AC	DPDT	10.77	6.15	5.84	5.54
886-0183	GA11D	12 DC	DPDT	10.05	5.90	5.61	5.31
886-0184	GA11D	24 DC	DPDT	10.05	5.90	5.61	5.31
886-0187	GA14A	120 AC	3PDT	11.26	7.50	7.13	6.75

Stock No.	Mfr's Type	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0191	GA17A	24 AC	4PDT	12.19	8.65	8.22	7.79
886-0192	GA17A	120 AC	4PDT	12.19	8.65	8.22	7.79
886-0193	GA17A	240 AC	4PDT	13.03	8.65	8.41	7.97
886-0195	GA17D	12 DC	4PDT	12.50	7.95	7.55	7.16

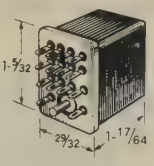
Alec Electron Says – Our General Purpose Relays are Dependable

General-Purpose Relays

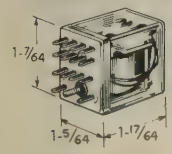
SERIES KH MINIATURE 4PDT RELAYS



Type KHP



Type KHS



Type KHU

For Use with Series 9KH Sockets

SERIES KH MINIATURE 4PDT RELAYS

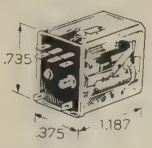
KHP and **KHU** have nylon dust cover; **KHS**, hermetically sealed with metal cover. KHU, U.L. Recog. Gold-flashed silver contacts rated 3 amps at 30 VDC or 120 VAC res., except suffix "12," silver-cadmium oxide. Solder term. KHP has 3-48 mtg. stud. 2 oz. **Contact Allied for prices in quantities of 100-UP.**

COIL DATA FOR SERIES KH RELAYS

DC Coils (0.5-2 Watts)			AC Coils (1.20 VA)		
V	Resistance in Ohms ±10% @25°C	Induct. in H (approx.)	V	Resistance in Ohms ±10% @25°C	Aver. Curr. mA
6	40	.08	6	10.5	200
12	160	.28	24	160	52
24	650	1.0	120	3900	10.5
48	2600	4.5	....	.....	.....
110	11k	17.0	....	.....	.....

Stock No.	Mfr's Type	Coil Volts	EACH 1-9	10-24	25-49	50-Up
886-0545	KHP17A11	6 AC	11.71	6.50	6.18	5.85
886-0547	KHP17A11	24 AC	11.71	6.50	6.18	5.85
886R0548	KHP17A11	120 AC	12.75	7.05	6.70	6.35
886-0550	KHP17D11	6 DC	10.59	5.90	5.61	5.31
886R0551	KHP17D11	12 DC	10.59	5.90	5.61	5.31
886R0552	KHP17D11	24 DC	10.59	5.90	5.61	5.31
886-0553	KHP17D11	48 DC	11.06	6.15	5.84	5.54
886-0555	KHP17D11	110 DC	12.48	6.90	6.56	6.21
886-0557	KHP17D12	24 DC	10.97	6.10	5.80	5.49
886-0564	KHS17A11	120 AC	14.68	11.75	11.16	10.58
886-0566	KHS17D11	6 DC	13.00	10.40	9.88	9.36
886-0567	KHS17D11	12 DC	13.00	10.40	9.88	9.36
886-0568	KHS17D11	24 DC	13.00	10.40	9.88	9.36
886-0569	KHS17D11	110 DC	14.43	11.55	10.97	10.40
886-0577	KHU17A11	24 AC	11.71	6.50	6.18	5.85
886-0578	KHU17A11	120 AC	12.75	7.05	6.70	6.35
886-0580	KHU17D11	6 DC	10.59	5.90	5.61	5.31
886-0581	KHU17D11	12 DC	10.59	5.90	5.61	5.31
886-0582	KHU17D11	24 DC	10.59	5.90	5.61	5.31
886-0588	KHU17D12	24 DC	10.97	6.10	5.80	5.49
886-0585	KHU17D11	110 DC	12.47	6.90	6.56	6.21

R10 SERIES DC INDUSTRIAL RELAYS



Transparent enclosures. Solder terminals, for stud or plug-in mounting. Mechanical Life: 100 million operations. Contacts: 2, 4 or 6 Form C; fine silver, gold bonded. Contact Resistance: 50 milliohms maximum initially; 200 milliohms after life. Operating temperature: —55° to +72°C. Size, 1.187x.735x.375" max. *Number of contacts. Wt. 1½ oz.

WITH BIFURCATED LOW LEVEL CONTACTS

Stock No.	Mfr's Type R10-	Coil V or mA DC	*	EACH 1-9	10-49	50-99	100-Up
886-1105	E1-Z2-V700	24 V	2	6.53	3.92	3.48	3.05

WITH SENSITIVE CURRENT ADJUSTMENT

Contacts rated 2 amps.

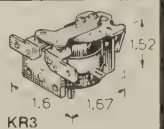
886-1070	E1-Y2-J2.5K	5.8 mA	2	6.37	3.83	3.40	2.98

R10 TELEPHONE TYPE RELAYS

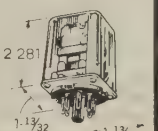
Contact ratings: Y Series, 2A; X Series, 5A.

Stock No.	Mfr's Type R10-	Coil Volts DC	*	EACH 1-9	10-49	50-99	100-Up
886-1075	E1-Y2-V185	12 V	2	5.85	3.51	3.12	2.73
886-1076	E1-Y2-V700	24 V	2	5.85	3.51	3.12	2.73
886-1089	E1-Y4-V15.0K	110 V	4	9.82	5.90	5.24	4.59
886-1091	E1-X2-115VAC	115VAC	2	9.97	5.99	5.32	4.66
886-1092	E1-X4-115VAC	115VAC	4	12.15	7.29	6.48	5.67
886-1095	E1-Y6-V430	24 V	6	8.32	5.00	4.44	3.89
886-1050	E1-X2-V185	12 V	2	6.07	3.65	3.24	2.84
886-1051	E1-X2-V700	24 V	2	6.07	3.65	3.24	2.84
886-1052	E1-X4-V52	6 V	4	6.90	4.14	3.68	3.22
886-1053	E1-X4-V185	12 V	4	6.90	4.14	3.68	3.22
886-1054	E1-X4-V700	24 V	4	6.90	4.14	3.68	3.22
886-1057	E1-X6-V430	24 V	4	9.00	5.40	4.80	4.20
886-1087	E1-Y4-V700	24V	4	6.45	3.87	3.44	3.01

KR3 AND KRP3-H SERIES DOUBLE-BREAK HEAVY-DUTY RELAYS



KR3

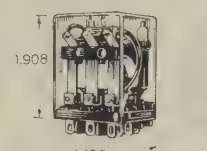


KRP3-H

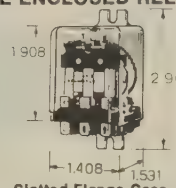
Copper alloy contact arms; silver-cadmium-oxide contacts. Rated 20 amps, 120 VAC, 60 Hz resistive, or 28 VDC; 1 hp, 120/240 VAC, 60 Hz. Action is SPST-N.O.-DM (one Form X). KR3 Series are 6-32 stud mounted on .437" mtg. centers. Measure 1.6x1.67x1.52". KRP3-H Series have same specifications as above but are enclosed in clear plastic dust cover and have octal base. Both types have same coil rating as KA Series, shown in this section. Av. shpg. wt. 3 oz.

Stock No.	Mfr's Type	Coil Volts	EACH 1-9	10-24	25-49	50-Up
886-0656	KR3AH	120 AC	9.66	5.45	5.18	4.91
886-0658	KR3DH	12 DC	9.19	5.15	4.89	4.64
886-0661	KRP3AH	120 AC	13.06	8.70	8.27	7.83
886-0663	KRP3DH	12 DC	12.68	8.45	8.03	7.61
886-0664	KRP3DH	24 DC	12.68	8.45	8.03	7.61

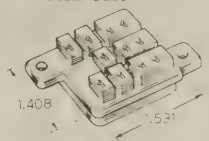
KUP SERIES 10-AMPERE ENCLOSED RELAYS



Plain Case



Slotted Flange Case



For Use with Series 9KU Sockets

Plain Case. Industrial control relays for continuous operation. Silver-cadmium oxide contacts. Terminals .187" quick-connect/solder style. Clear plastic dust cover. **Slotted-Flange Case.** For direct-to-chassis mtg. Slot width, .156". 1.531x1.408x1.908". Wt. 3 oz.

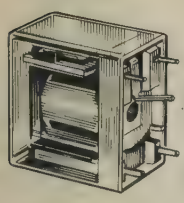
KUP SERIES WITH PLAIN CASE

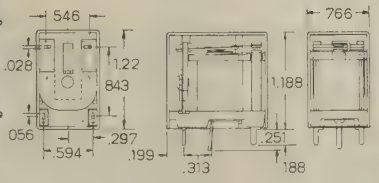
Stock No.	Mfr's Type KUP-	Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0771	5A15	24 AC	SPDT	9.10	4.85	4.61	4.37
886-0772	5A15	120 AC	SPDT	9.10	4.85	4.61	4.37
886-0774	5D15	6 DC	SPDT	8.72	4.65	4.42	4.19
886-0775	5D15	12 DC	SPDT	8.72	4.65	4.42	4.19
886-0776	5D15	24 DC	SPDT	8.72	4.65	4.42	4.19
886-0778	11A15	6 AC	DPDT	11.07	5.90	5.61	5.31
886-0779	11A15	12 AC	DPDT	11.07	5.90	5.61	5.31
886-0780	11A15	24 AC	DPDT	11.07	5.90	5.61	5.31
886-0781	11A15	120 AC	DPDT	11.07	5.90	5.61	5.31
886-0782	11A15	240 AC	DPDT	12.10	6.45	6.13	5.81
886-0784	11D15	12 DC	DPDT	10.02	5.35	5.08	4.82
886-0785	11D15	24 DC	DPDT	10.02	5.35	5.08	4.82
886-0786	11D15	110 DC	DPDT	11.53	6.15	5.84	5.54
886-0788	14A15	120 AC	3PDT	12.37	6.60	6.27	5.94
886-0789	14A15	240 AC	3PDT	13.40	7.15	6.79	6.44
886-0790	14D15	6 DC	3PDT	11.45	6.10	5.80	5.49
886-0791	14D15	12 DC	3PDT	11.45	6.10	5.80	5.49
886-0792	14D15	24 DC	3PDT	11.45	6.10	5.80	5.49
886-0793	14D15	110 DC	3PDT	12.37	6.60	6.27	5.94

KUP SERIES WITH SLOTTED-FLANGE

Stock No.	Mfr's Type KUP-	Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0800	14A55	6 AC	3PDT	12.37	6.60	6.27	5.94
886-0802	14A55	24 AC	3PDT	12.37	6.60	6.27	5.94
886-0803	14A55	120 AC	3PDT	12.37	6.60	6.27	5.94
886-0804	14A55	240 AC	3PDT	13.40	7.15	6.79	6.44
886-0806	14D55	12 DC	3PDT	11.45	6.10	5.80	5.49
886-0807	14D55	24 DC	3PDT	11.45	6.10	5.80	5.49

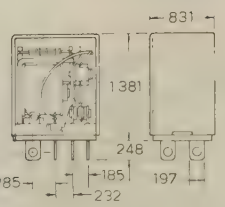
SERIES 1345 SINGLE POLE 10 AMP MINIATURE DC RELAY

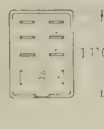


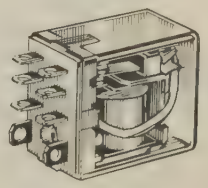


NEW!

SERIES 1390 AC AND 1395 DC COMPACT DPDT 10 AMP RELAYS







SPDT contact arrangements. Expected life, in excess of 100 million operations. Insulation resistance, 1000 megohms, min., with 500VDC mega. Breakdown voltage, 1000 VRMS 60 Hz between contacts; 1500 VRMS 60 Hz between contacts and frame, coil and frame, contacts and coil. Material, silver cadmium oxide. PC standard terminals. Lock, snap-on nylon cover with transparent compact viewing window. Wt. 1 oz. Contact rating 2.5A resistive @ 120 VAC, 10A @ 12 VDC.

Stock No.	DC Coil Volts	±10% Tol. Coil Resistance	EACH 1-9	10-24	25-Up
802-1880	6	350	2.42	1.93	1.55
802-1885	12	1400	2.42	1.93	1.55
802-1890	24	5600	2.70	2.16	1.67

Large capacity in a small, low cost package. Mechanical life of 100 million operations. Heat resistant dust cover of clear Lexan. Insulation resistance, 1500 megohms, min., Breakdown voltage, 500 VRMS 60 Hz between contacts; 1500 VRMS 60 Hz between contacts and field piece, contacts and coil, coil and field piece. Material, silver cadmium oxide. Rating, 10 amps @ 28 VDC or 120 VAC resistive. With plug-in socket mounting *Coil volts. Wt. 1 oz.

SERIES 1390

Stock No. 802-	VAC *	EACH 1-9	10-24	25-Up
1915	120	7.58	6.06	4.85
1920	24	7.42	5.93	4.75
1925	12	7.42	5.93	4.75

SERIES 1395

Stock No. 802-	VDC *	EACH 1-9	10-24	25-Up
1900	24	6.33	5.06	4.05
1905	12	6.33	5.06	4.05
1910	6	6.33	5.06	4.05

802-1931. Socket for above ..... EACH 1.10

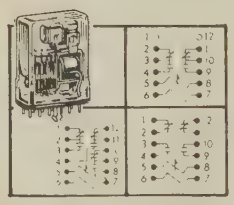
General Purpose Industrial Relays

RELAYS FOR INDUSTRIAL CONTROL

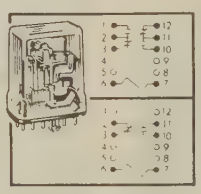
GENERAL PURPOSE RELAYS

FRAME 219. Twelve pin. Basic Type; Manual Actuator (M); Bifurcated contacts*. Specify coil voltage.

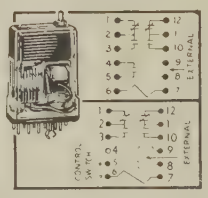
Stock No.	Mfr's Type	Contacts	Volts	EACH 1-9	10-24	25-49	50-Up
929R2174	219BBXD	DPDT & 2 NO	115AC	23.38	22.26	21.50	20.43
929-2178	219BBXD	DPDT & 2 NO	24DC	23.38	22.26	21.50	20.43
929-2179	219BBXD	DPDT & 2 NO	115DC	23.38	22.26	21.50	20.43
929-2184	219BBXPM	DPDT & 2 NO	115AC	25.38	24.13	23.30	22.14
929-2194	219BBXP33*	DPDT & 2 NO	115AC	29.73	28.27	27.30	25.94
929-2144	219ABAP	DPDT, 1 NO, 1 NC	115AC	23.38	22.26	21.50	20.43



LATCH
FRAME 255. Relays mechanically latched, electronically-reset versions of 219 relay. 10A, 115 VAC



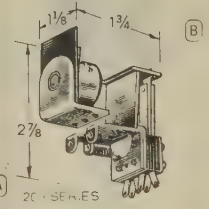
SEQUENCE
FRAME 211. 8-tooth ratchet, 2-contact cams. R suffix transfer on release of coil power. 5A, 115 VAC res.



TIME DELAY
FRAME 236. "On Delay" network energizes relay. Preset .2 to 20 sec. Adjustable.

Stock No.	Mfr's Type	Contacts	Volts	EACH 1-9	10-24	25-49	50-Up
929-2514	255XBXP	DPDT	115AC	38.49	36.66	35.40	33.63
929-2524	255XCXP	3PDT	115AC	41.58	39.54	38.20	36.29
929-2504	255BXBP	2 NO & 2 NC	115AC	41.58	39.54	38.20	36.29
929-2414	236ABXP	DPDT & 1 NO	115AC	89.93	85.62	82.70	78.57
929R2124	211XBXP	DPDT	115AC	39.75	37.79	36.50	34.68
929-2104	211AXAP	1 NO — 1 NC	115AC	35.91	34.17	33.00	31.35

SERIES 200 RELAY ASSEMBLIES



Separate Coils and Contact Assemblies Let You Custom-Design Your Own Relays

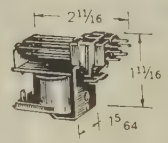
A RELAY ASSEMBLIES

Stock No.	Mfr's Type	Coil Volts	EACH 1-9	10-24	25-49	50-Up
802-1319	200-6A	6 AC	4.05	3.24	2.24	2.12
802-1327	200-24A	24 AC	4.05	3.24	2.24	2.12
802-1333	200-120A	120 AC	4.73	3.78	2.61	2.47
802-1325	200-12D	12 DC	4.40	3.52	2.43	2.30
802-1329	200-24D	24 DC	4.40	3.52	2.43	2.30

B CONTACT SWITCH ASSEMBLIES

Stock No.	Mfr's Type	Contacts Action	Amps	EACH 1-9	10-24	25-49	50-Up
802-1311	200-1	SPDT	8	3.73	2.98	2.06	1.95
802-1313	200-2	DPDT	8	4.85	3.88	2.69	2.54
802-1317	200-5	4PDT	8	8.58	6.86	4.74	4.48

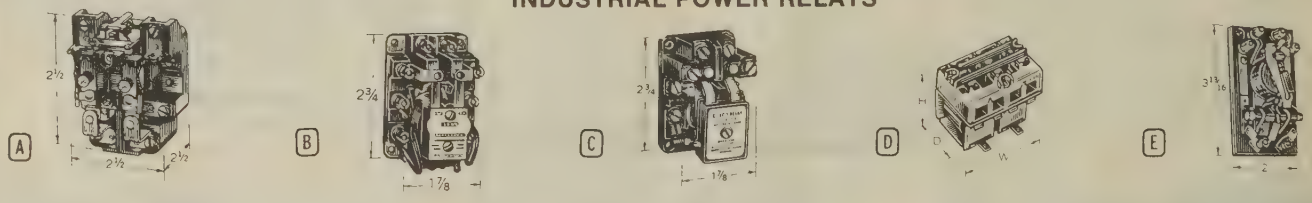
DPDT 10A RELAYS



Series 900-905. Contacts are 10A at 115 volts. AC resistive. One-piece switch mounting clips, return springs, molded covers, locked lifters. 5 oz.

Stock No.	Coil Volts	Stock No.	Coil Volts	EACH 1-9	10-24	25-49	50-Up
802-1452	120 AC	802-1458	12 DC	4.00	3.20	2.05	1.95

INDUSTRIAL POWER RELAYS



A 30-AMP POWER RELAYS

Have DPST N.O., SPDT or DPDT silver cadmium-oxide contacts rated 30 A cont. at 120 VAC, 10A at 600 VAC. Front panel mounting with screw connection. AC units 10 VA; DC, 2 watts, U.L. and CSA Listed.

DPST

Stock No.	Mfr's Type	Coil	EACH 1-9	10-24	25-49	50-Up
929-3024	425BXX	24 VAC	9.92	6.40	6.08	5.76
929R3120	425BXX	120 VAC	9.92	6.40	6.08	5.76

SPDT

Stock No.	Mfr's Type	Coil	EACH 1-9	10-24	25-49	50-Up
929-5120	425XAX	120 VAC	8.68	5.60	5.32	5.04
929-6012	425XAX	12 VDC	8.68	5.60	5.32	5.04

DPDT

Stock No.	Mfr's Type	Coil	EACH 1-9	10-24	25-49	50-Up
929-7120	425XBX	120 VAC	13.00	8.40	7.98	7.56
929-7240	425XBX	240 VAC	14.20	9.18	8.72	8.26

B B1XBX DPDT MIDGET RELAY

For control circuits, small motor operation, etc. Cont. res. ratings 115VAC; 6A@24V; 3A@230VAC; 0.5@115 VDC. Insul. tested at 300V. Coil 115VAC.

929-0716. 1-9 ... Ea. 22.21 10-24 ..... Ea. 20.09
25-49 ..... Ea. 19.40 50-Up ..... Ea. 17.46

C 415XBX SMALL POWER RELAY

For control of instruments, motors, valves, etc. DPDT SCO single break contacts. Contacts cont. 15A@115VAC res.; 10A@230VAC. Coil 115V, 50-60 Hz.

929-2010. 1-9 ... Ea. 11.86 10-24 ..... Ea. 10.67
25-49 ..... Ea. 10.30 50-Up ..... Ea. 9.60

D REVERSING CONTACTORS

A275KXX. Two 3-pole contactors on common frame, interlocked to prevent simultaneous closure. 1 hp @ 120, 240, 480AC; 1, 2, 3 phase with all contact switching. $3^{5}/_{16}$x$2^{3}/_{16}$x$2^{7}/_{8}$". U.L. Rec.; C.S.A.

Stock No.	Mfr's Type	Coil Volts	EACH 1-9	10-24	25-49	50-Up
929-0550	A275KXX	24AC	22.26	21.50	20.00	19.35
929-0553	A275KXX	120AC	22.26	21.50	20.00	19.35

E B11AXA RATCHET SEQUENCE RELAY

DPST cam operated contacts repeat a predetermined sequence. Contacts open and close alternately. Cont. 6A@115VAC or 24VDC. 0.5@115VDC. Coil 115VAC.

929-0719. 1-9 ... Ea. 42.92 10-24 ..... Ea. 38.93
25-49 ..... Ea. 37.60 50-Up ..... Ea. 33.84

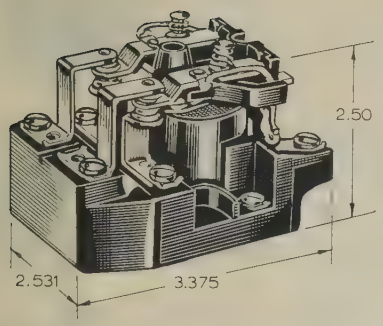
YOU CAN HELP US SPEED UP YOUR ORDER AND MAKE SURE YOU GET THE POWER RELAY YOU WANT BY SIMPLY GIVING US THE

1. ALLIED STOCK NUMBER
2. MFR'S TYPE DESIGNATION
3. COIL VOLTAGE & FREQUENCY (OR DC)
4. CONTACT RATING DESIRED

IF THERE ARE ANY SPECIAL OPERATING OR ENVIRONMENTAL CONDITIONS TO CONSIDER, WE SHOULD KNOW THAT ALSO. ALL THIS INFORMATION WILL HELP US TO HELP YOU GET AN INDUSTRIAL POWER RELAY THAT WILL DO WHAT YOU WANT IT TO FOR A LONG, LONG TIME.

Power Relays

PRD TYPE HEAVY DUTY POWER RELAYS



- **Interchangeable with PR Relays**
- **For Industrial Control Applications**
- **U.L. Component Recognized**
- **Screw Terminals**

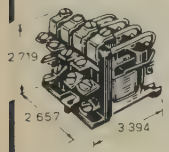
PRD relays are interchangeable with PR relays; same size and mounting holes. Improved design allows use of power screwdrivers on terminals. All models are UL listed. CSA listing pending. All have silver contacts rated 25 amps. Mounting: two .188" dia. holes on 1.875" centers. *Auxiliary switch with 5 amp contacts. Weight: 11 oz.

DC COIL				AC COILS (50-60 Hz)			
Volts	Res. in Ohms	Volts	Res. in Ohms	Volts	Res. in Ohms	Volts	Res. in Ohms
6	18	6	.86	12	71	12	3.2
24	288	24	12	110	6050	120	290
..	...	240	1.2K	480	4.5K	...	...

Stock No.	Type PRD	Coil Volts	Contacts	EACH 1-9	10-24	25-49	50-Up
886-0972	3AYO	24 AC	SPST	8.56	5.70	5.42	5.13
886R0973	3AYO	120 AC	SPST	8.56	5.70	5.42	5.13
886-0974	3AYO	240 AC	SPST	9.46	6.30	5.99	5.67
886-0981	5AYO	24 AC	SPDT	8.92	5.95	5.65	5.36
886R0982	5AYO	120 AC	SPDT	8.92	5.95	5.65	5.36
886-0983	5AYO	240 AC	SPDT	9.90	6.60	6.27	5.94
886-0985	5DYO	12 DC	SPDT	8.92	5.95	5.65	5.36
886-0986	5DYO	24 DC	SPDT	8.92	5.95	5.65	5.36
886-0987	5DYO	110 DC	SPDT	10.20	6.80	6.46	6.12
886-0989	7AYO	12 AC	DPST	10.06	6.70	6.37	6.03
886-0990	7AYO	24 AC	DPST	10.06	6.70	6.37	6.03
886R0991	7AYO	120 AC	DPST	10.06	6.70	6.37	6.03
886-0992	7AYO	240 AC	DPST	10.96	7.30	6.94	6.57

Stock No.	Type PRD	Coil Volts	Contacts	EACH 1-9	10-24	25-49	50-Up
886-0994	7DYO	12 DC	DPST	10.12	6.75	6.41	6.08
886-0995	7DYO	24 DC	DPST	10.12	6.75	6.41	6.08
886-1002	11AYO	6 AC	DPDT	13.20	8.80	8.36	7.92
886-1003	11AYO	12 AC	DPDT	13.20	8.80	8.36	7.92
886-1004	11AYO	24 AC	DPDT	13.20	8.80	8.36	7.92
886R1005	11AYO	120 AC	DPDT	13.20	8.80	8.36	7.92
886-1006	11AYO	240 AC	DPDT	14.10	9.40	8.93	8.46
886-1007	11AYO	480 AC	DPDT	15.82	10.55	10.02	9.50
886-0999	A11AYA	24 AC	DPDT*	15.59	12.45	11.83	11.21
886-1000	A11AYA	120 AC	DPDT*	15.59	12.45	11.83	11.21
886-1009	11DYO	12 DC	DPDT	13.20	8.80	8.36	7.92
886-1010	11DYO	24 DC	DPDT	13.20	8.80	8.36	7.92
886-1011	11DYO	110 DC	DPDT	14.40	9.60	9.12	8.64

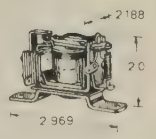
PM17 4PDT 25-AMP POWER RELAYS



For polyphase and heavy-duty switching. 4PDT. Silver-cadmium-oxide contacts rated at 25 amps, 220 V, 50-60 Hz, non-inductive. 1 hp per movable arm at 120 or 240 V single-phase. U.L. Component-Program Recognized and C.S.A. Listed. Mount by keyhole and 2 channels for 8-32 screws on 2x2½" triangular centers. Screw term. 2⁴⁵⁄₆₄x2³¹⁄₃₂x3¹³⁄₆₄". 1 lb.

Stock No.	Type PM-	Coil Volts	Res. in Ohms	EACH 1-9	10-24	25-49	50-Up
886-0951	17AY	24 AC	5.0	23.00	18.40	17.48	16.56
886R0952	17AY	120 AC	120	23.00	18.40	17.48	16.56
886-0953	17AY	240 AC	587	23.13	18.50	17.58	16.65
886-0956	17DY	12 DC	33.0	19.81	15.85	15.06	14.27
886-0957	17DY	24 DC	132.0	19.81	15.85	15.06	14.27
886-0958	17DY	110 DC	2760.0	21.63	17.30	16.44	15.57

MR MEDIUM-DUTY POWER RELAYS



Medium-duty power relays for small motors, transmitters and other applications. Contacts 7/32" diameter silver, rated 8 amps. Sizes: SP units, 1¹¹⁄₁₆x1¹¹⁄₃₂x2³¹⁄₃₂"; DP units, 2x2⁹⁄₁₆x2¹⁹⁄₃₂"; 3-pole, 2x2⁹⁄₁₆x2³¹⁄₃₂". Mounting: 5/32" diameter holes on 2¼" centers for MR11; 2⅝" centers for MR5 and MR14.

SPDT

Stock No.	Mfr's Type	Coil Volts	Coil Ohms	EACH 1-9	10-24	25-49	50-up
886-0895	MR5A	6 AC	2.75	8.81	5.85	5.56	5.27
886-0897	MR5A	24 AC	50.0	8.81	5.85	5.56	5.27
886-0898	MR5A	120 AC	1250.0	8.81	5.85	5.56	5.27
886-0901	MR5D	12 DC	96.0	8.62	5.75	5.46	5.18

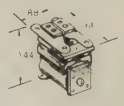
DPDT

Stock No.	Mfr's Type	Coil Volts	Coil Ohms	EACH 1-9	10-24	25-49	50-up
886-0909	MR11A	24 AC	50.0	12.56	7.85	7.46	7.07
886-0910	MR11A	120 AC	1250.0	12.56	7.85	7.46	7.07
886-0912	MR11D	6 DC	24.0	11.81	7.80	7.41	7.02

3PDT

Stock No.	Mfr's Type	Coil Volts	Coil Ohms	EACH 1-9	10-24	25-49	50-up
886-0920	MR14A	120 AC	1250.0	14.91	10.30	9.79	9.27

MB3D 60-AMP MINIATURE DC RELAYS



For very high current applications. Contact arms are heavy brass with large silver contacts. Solder terminals. Rated 60 amps @ 28 VDC, resistive. SPST, double break, normally open. 1⅝x2⁷⁄₃₂x1⅜". Mounting: Four 3-48 holes on ⅜x⅜" centers. Both relays are type MB3D. Wt. 3 oz.

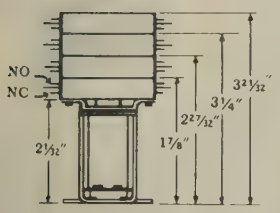
Stock No.	Coil Volts	Ohms	mA	EACH 1-9	10-24	25-49	50-Up
886-0835	12 DC	62.3	193	13.18	10.55	10.02	9.50
886-0836	24 DC	245.0	98	13.18	10.55	10.02	9.50

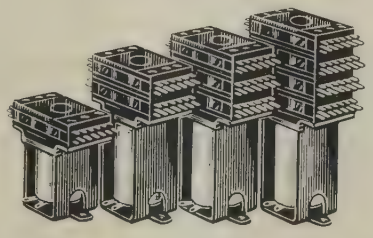
ABC 10-AMP RELAYS

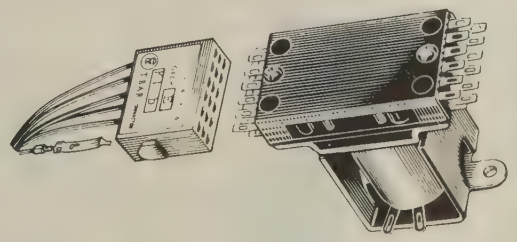
Terminals fit snap-on connectors, or may be dip-soldered to printed circuit. Snap-on screw adapters included. 10 A DPDT silver contacts. AC types U.L. Recog. C.S.A. Listed. Dust covers, mount by one 8-32 stud. 8 oz.

Stock No.	Mfr's Type	Coil Type	EACH 1-9	10-24	25-49	50-Up
886-0018	ABC11AY	120 AC	10.81	8.65	8.22	7.79
886-0021	ABC11DY	12 DC	11.38	9.10	8.65	8.19

MULTI-POLE 8 TO 48 POLE RELAYS, DOUBLE THROW







TYPE 801 RELAY

- **General Purpose and Low Level**
- **12, 24, and 110 VDC**
- **Dust-Tight Enclosures**
- **Form C Contacts**

These general purpose double throw relays have gold-plated button contacts. They are ideal where large power drain would strain circuit power supplies or generate undesirable heat. Contact assemblies in dust-tight plastic enclosures 1-1/32" w. x 2⅜" lg.; ht. 13/32" per 12-pole wafer.

SERIES	Application	No. of Poles	Contact Form	Coil Type	DC Coil Voltage
801	Gen. Purpose	8 to 48	C	Continuous Duty	12, 24, 28, 110

Contacts: Series 801: Gold plated, 5 A max. resistive to 150 W

Life: Series 801: 20,000,000 @ 100 mW; 100,000 @ 5A 28 V

Contact Resistance: 20 milliohms **Ambient Temp.** –55° to +85° C

Terminals: Mate with 88601 Connectors. Push on, or may be soldered.

Dielectric Strength: 100 V rms @ 60 cps **Insul. Res.:** 500 meg. min.

Stock No.	Mfr's Type	Coil VDC	Coil Ohms	Coil Amps	Watts @ Nom. Volts	Cont. Arr.	EACH 1-9	10-24	25-49	50-Up
774-0081	801-8C24	24	193.	.124	3.0	8PDT	21.76	19.20	18.25	17.35
774-0087	801-12C12	12	49.	.244	3.0	12PDT	27.20	24.00	22.80	21.65
774-0088	801-12C24	24	193.	.124	3.0	12PDT	24.88	21.95	20.85	19.80
774-0091	801-12C110	110	3963.	.028	3.0	12PDT	24.88	21.95	20.85	19.80
774-0097	801-24C24	24	174.	.138	3.5	24PDT	45.15	39.85	37.85	36.85
774-0100	801-24C110	110	3450.	.032	3.5	24PDT	45.15	39.85	37.85	36.85
774-0106	801-36C24	24	111.	.216	5.25	36PDT	61.33	54.10	51.40	48.85
774-0116	801-48C24	24	94	.255	6.6	48PDT	77.80	68.40	65.00	61.75

CONNECTORS AND TOOLS

Model 88601 Connector. Use in connecting wire to terminals or switches. Wires first crimped to snap-in terminal using Model 8601-51 crimping tool (see below); nylon terminal block pushes onto wafer terminals. Each connector handles 6 poles, single or double throw (18 terminals). Includes 1 connector block, 20 crimp contacts, 2 label, 1 retaining cup.
774-0195. 1-9 ..... Each 2.62 10-Up ..... Each 1.70

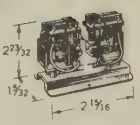
Model 8601-51 Crimping Tool. Abv. connectors. Crimps wire, insulation to snap-in terms.
774-0190. 1-4 ..... Each 111.48 5-Up ..... Each 85.00

Model 8601-61 Extraction Tool. Removes snap-in terminal from connector block.
774-0193. 1-4 ..... Each 14.95 5-Up ..... Each 10.00

Model 8601-71 Connector Tong. Pushing on or withdrawing connectors.
774-0192 ..... Each 3.32

Special-Purpose Relays for Industry

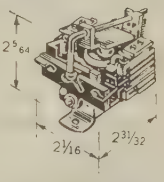
SERIES KB LATCHING RELAYS



4PDT relays. Contacts, 5-amp silver or 10-amp silver cadmium-oxide movables. Mounting, two 5/32" holes on 1 3/8" centers. AC 5-amp types are U.L. Component Program Recognized and C.S.A. Listed. Suffix G, 10-amp; others 5-amps. Av. shpg. wt. 7 oz

Stock No.	Type KB-	Coil Volts	Res. Ohms	EACH 1-9	10-24	25-49	50-Up
886-0485	17AY	6 AC	2.3	17.25	13.80	13.11	12.42
886-0487	17AY	24 AC	42	17.25	13.80	13.11	12.42
886-0488	17AY	120 AC	1030	17.25	13.80	13.11	12.42
886-0492	17D	24 DC	230	16.75	13.40	12.73	12.06
886-0482	17AG	24 AC	42	18.06	14.44	13.73	13.01
886-0483	17AG	120 AC	1030	18.06	14.44	13.73	13.01
886-0496	17DG	24 DC	230	17.13	13.70	13.02	12.33

PC 7.5-AMP IMPULSE RELAYS

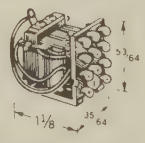


Armature and pusher assembly operate phenolic rocker switching from one contact pole to the other on alternate pulses. For on-off or reversing. Pulses may be as short as 60 milliseconds at 5 Hz. Gold-flashed silver cadmium-oxide contacts rated 7.5 amps at 120 volts AC, resistive load. AC coils are for 50-60 Hz. Mounting two 9/32" holes on 2 5/8" ctrs. Size, 2 1/16 x 2 31/32 x 2 5/64". 5 oz.

ALL ARE DPDT EXCEPT *4PDT

Stock No.	Mfr's Type	Coil Volts	Ohms	EACH 1-9	10-24	25-49	50-Up
886-0937	PC11A	24 AC	8.8	11.18	8.95	8.50	8.06
886-0938	PC11A	120 AC	240.0	11.18	8.95	8.50	8.06
886-0940	PC11D	12 DC	15.5	10.63	8.50	8.08	7.65
886-0941	PC11D	24 DC	65.0	10.63	8.50	8.08	7.65
886-0943	PC17A*	120 AC	240.0	19.63	15.70	14.92	14.13

KM 2-AMP SUBMINIATURE RELAYS

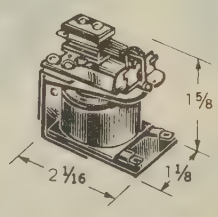


Provides multiple switching in a relay that occupies less than one cubic inch. Used extensively in small business machines, alarm systems, automatic toys and communications. Withstand 30g shock. Weight, 0.58 oz. 3/32" silver contacts rated at 2 amps. Solder terminals. Mount by 2-56 tapped core and locating half-punch on .187" centers. 1 1/8 x 53/64 x 35/64". Shpg. wt. 1 oz.

Stock No.	Mfr's Type	Coil Volts	Action	EACH 1-9	10-24	25-49	50-Up
886-0610	KM11D	12 DC	DPDT	10.81	8.65	8.22	7.79
886-0614	KM14D	12 DC	3PDT	13.18	10.55	10.02	9.50

840L MIDGET LATCHING RELAYS

- Positive On-Off Control for Use In Industry
- Single-Coil Construction
- Snap-Action Switch For 20 Millisecond Impulse Reaction



Single-coil construction. Designed for positive on-off control of positioning devices, remote controls, lighting circuits and similar industrial applications. Contacts are rated 5 amperes.

Snap-action switch mechanism operates on impulses as short as 20 milliseconds. Contacts hold in the last position of switch when coil is de-energized. For 115 V, 60 Hz AC. Size, 1 5/8 x 1 1/8 x 2 1/16". Shpg. wt. 4 oz.

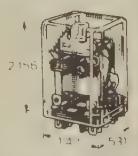
Stock No.	Type IR-840-	Action	EACH 1-9	10-24	25-49	50-Up
802-0277	L-C-120A	SPST	8.85	6.15	5.54	5.23
802-0278	L-2C-120A	DPDT	10.67	7.42	6.68	6.31

KBP LATCHING PLUG-IN RELAYS

Fast acting, positive latching; for overload or memory work. Momentary impulse to one of the coils operates relay to set latch. Second pulse to other coil releases it. Enclosed in translucent polypropylene cover. Suffix G, 10 amps; others 5 amps. Type KBP17 is 4PDT; KBP20 is 5PDT. 20-pin octal type plug fits Type 77MIP20 socket. Shpg. wt. 8 oz.

Stock No.	Mfr's Type	Coil Volts	EACH 1-9	10-24	25-49	50-Up
886-0505	KBP17A	120 AC	28.31	22.65	21.52	20.39
886-0506	KBP17AG	120 AC	28.68	22.95	21.80	20.66
886-0517	KBP20AG	120 AC	33.06	26.45	25.13	23.81

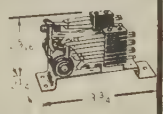
KUL MAGNETIC LATCHING RELAYS



Continuous duty single coil types. Uses a permanent magnet in parallel with normal magnetic circuit, requires only half the space of mechanical interlock types. Continuous latch condition even during loss of power. Contacts rated 10 amps at 28 VDC or 120 VAC, 80% power factor. Temp. range, —45° to 75°C. All are DPDT. Av. wt. 3½ oz.

Stock No.	Type KUL-	Coil V	Coil Ohms	EACH 1-9	10-24	25-49	50-Up
886-0763	11A15S	120 AC	3700	13.72	9.15	8.69	8.24
886-0766	11D15S	24 DC	472	10.72	7.15	6.79	6.44

AP 5-AMP RATCHET IMPULSE RELAYS



On-off or reversing action on alternate impulses. Stop mechanism. Intermittent duty. DPDT except *4PDT. Contacts 3/16" fine silver, rated 5 A at 120 V, 60 Hz. Tinned solder term. Mtg.: three 9/32" dia. holes on 3 3/8 x 7/8" triangular cuts. 2 5/16 x 2 1/4 x 3 3/4". Av. 9 oz.

Stock No.	Mfr's Type	Coil Volts	Ohms	EACH 1-9	10-24	25-49	50-Up
886-0029	AP11A	120 AC	240	20.25	16.20	15.39	14.58
886-0035	AP17A*	120 AC	240	27.50	22.00	20.90	19.80
886-0036	AP17D*	12 DC	15.5	26.38	21.10	20.05	18.99

GM IMPULSE/SEQUENCING RELAYS

With PC Boards. Uses design of GM Series, at left, with added uni-directional PC board with up to 12 steps. Board is attached to extension of ratchet shaft; movable contact arm advances one position each time armature drops out. *Coil voltage: 120 AC; 510 ohms. †24 VDC; 144 ohms. Contact rating, ¼ watt. 5 oz.

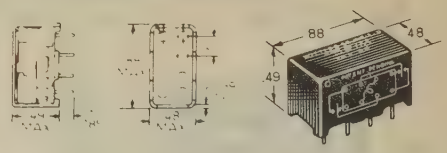
Stock No.	Mfr's Type	Action	EACH 1-9	10-24	25-49	50-Up
886-0220	GM1N10A	10-step*	17.31	13.85	13.16	12.47
886-0222	GM1N12A	12-step*	16.56	13.25	12.59	11.93
886-0223	GM1N12D	12-step†	16.25	13.00	12.35	11.70

ALLIED TYPE 3030 AC BUZZER

Low cost buzzer that is ideal for thermo, end-of-cycle use. 6-32 tapped mounting hole. Size, 7/8 x 1 13/32 x 25/32". Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	V AC	Coil Ohms	EACH 1-24	25-49	50-99	100-Up
703-0500	3030-1	6	45	2.00	1.90	1.80	1.40
703-0501	3030-2	12	45	2.00	1.90	1.80	1.40
703-0502	3030-3	24	150	2.00	1.90	1.80	1.40
703R0503	3030-4	120	3000	2.00	1.90	1.80	1.40

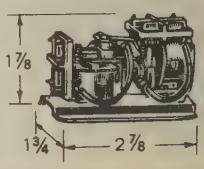
MICROMINIATURE HP RELAYS



Recommended for applications such as TV cameras, dictating machines, desk top computers, copying machines, etc. For PC circuit board or socket mounting. Encased in black, high impact dust covers. Non-polarized, non-latching half-size relay has terminals on .200" grid; for plug-in or soldering. Long-life DPDT gold-plated silver contacts rated low level to 2 amps at 30 VDC resistive; 0.5 amp maximum at 120 VAC. Insulation resistance, 100 megohms minimum at 500 VDC; breakdown voltage, 500 V rms. Size: .49 x .88 x .48". *Socket/retainer ring. Shpg. wt. 1 oz.

Stock No.	Mfr's Type	DC V	Coil Ohms	EACH 1-9	10-24	25-49	50-Up
886-0256	HP-11D	12	218	12.25	9.80	9.31	8.82
886-0257	HP-11D	24	870	12.25	9.80	9.31	8.82
886-1405	9 HP1 Socket*			1.50	1.10	1.00	.90

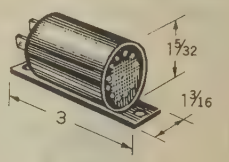
4PDT, 10 AMP AC RELAY



Two interlocking 120 AC relays mounted on a sturdy metal frame bracket. These relays maintain circuits continuously without coil power consumption. Relays are electric-pulse-operated with mechanical hold and electrical release. Rated for 10 amps non-inductive load at 60 Hz, 120 volts only. Coil resistance: 1,100 ohms. Dimensions: 1 7/8 x 1 3/4 x 2 7/8". Shipping weight: 5.5 ounces.

Stock No.	Mfr's Type IR-	EACH 1-9	10-24	25-49	50-Up
802-0285	1200/1200-4C	14.46	13.32	11.98	11.32

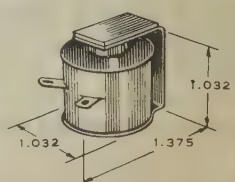
ROTOMITE DC STEPPING RELAYS



Small size makes these relays suitable for use in business machines, vending, counting, sorting, model trains, etc. Completely enclosed. 12 positions. Contact ratings at 115 V, 60 Hz: 3 amps resistive, 1 amp inductive; rotate continuously up to 20 steps per second. Expected life over 1 million operations. 5 oz.

Stock No.	Type IR-705-	V DC	EACH 1-9	10-24	25-49	50-Up
802R0267	12P-6D	6	12.00	8.09	6.80	6.42
802-0269	13P-24D	24	12.00	8.09	6.80	6.42

BU AC-OPERATED BUZZERS

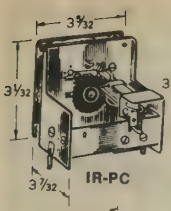


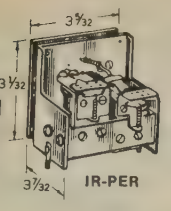
Has AC operate coil with a spring steel armature which buzzes when coil is energized. Used extensively in applications where a small, lightweight, dependable buzzer is required. Recognized under the Component Program of Underwriters' Laboratories, Inc. Mounting: #6-32 tapped core.

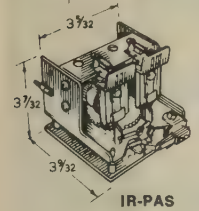
Stock No.	Mfr's Type	Volts	Ohms	EACH 1-9	10-24	25-49	50-Up
886-0042	BU-24AC	24AC	50	4.30	2.45	2.33	2.21
886R0043	BU-120AC	120AC	1250	4.30	2.45	2.33	2.21

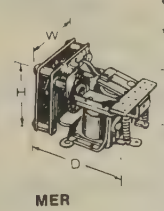
Industrial, AC-DC Stepping and Sensitive Relays

RELAYS









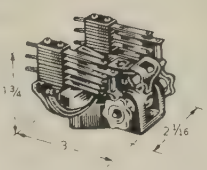
AC AND DC STEPPING RELAYS

Specially designed stepping relays for accurate sequence selecting, pulse multiplying/dividing, circuit selecting, automatic/remote homing, counting and latching. All are 120 VAC except for §24 VDC type. All are direct drive units with switching completed on energization. Bridging contacts are rated at 1½ amperes, 115 volts 60 Hz noninductive load. All are rated at 10% duty cycle out of each hour; maximum single period, 5 minutes. Will operate at 15% below or 10% above rated voltage. IR-PC and IR-MC are continuous-rotation types, constructed with micro-finished shaft and oilite shaft bearings. IR-PER and MER are electrical-reset types, with steel box-type frame. IR-PAS is bidirectional stepper. Wt., 2 lbs.

*Active contacts, including zero position.

Stock No.	Mfr's Type	No. Pts.	*	Size (HxWxD) Inches	EACH 1-9	10-24	25-49	50-Up
802-0060	IR-PC	40	40	3 1/32 x 3 3/16 x 3 3/16	28.39	26.16	23.54	22.24
802-0053	IR-MC	24	24	2 5/16 x 3 x 3 1/4	21.03	19.37	17.43	16.46
802-0063	IR-PER	40	36	3 5/16 x 3 3/16 x 3	39.28	36.18	32.56	30.75
802-0057	IR-PAS	40	40	3 5/16 x 3 3/16 x 3 1/4	39.28	36.18	32.56	30.75
802-0457	MER	24	22	2 3/4 x 3 5/16 x 2 7/16	24.20	22.29	20.06	18.95
802-0455	§MER	24	22	2 3/4 x 3 5/16 x 2 7/16	24.20	22.29	20.06	18.95

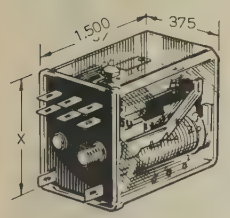
600 IMPULSE RATCHET RELAYS



For on/off control of lighting, motors, etc. Life expectancy over 1,000,000 steps. Each impulse reverses contacts. Up to 10 steps per second possible. Heavy-duty silver contacts rated 12½ amperes at 115 V, 60 Hz AC resistive. Size, 2 1/16 x 3 x 1 3/4". Av. shpg. wt. 8 oz.

Stock No.	Type and Coil Voltage	Action	EACH 1-9	10-24	25-49	50-Up
802-1410	660-C-24AC	SPDT	13.38	8.23	7.41	7.00
802-1414	660-C-120AC	SPDT	13.38	8.23	7.41	7.00
802R1418	660-2C-120AC	DPDT	13.90	8.89	8.00	7.56
802-1422	660-4C-120AC	4PDT	14.03	12.93	11.64	10.99

SENSITIVE



X= .950 (2PDT)
1.165 (4PDT)

NEW!

R10-E1 SERIES DC INDUSTRIAL RELAYS

Talk about precision manufacturing and broad versatility! The R10-E1 series DC industrial relays give you both at a very reasonable price! Use for a multitude of general industrial applications and many types of custom jobs! Recognized under the U/L component program, these relays are very sensitive, current-actuated DC relays for direct drive by DTL, TTL, ECL, and HTL. They come with solder terminals for stud or plug-in mounting. Contacts are .125" in diameter, made of silver-cadmium oxide that's gold diffused, and provide load carrying capability from dry circuit to 3 amps maximum. Contact arrangements are SPDT, 2PDT, and 4PDT with a mechanical life up to 10 million operations. **Resistive Load Rating:** each 28VDC or 115VAC ranges from .200 amps minimum to 3 amps maximum. Typical resistive load rating is 3 amps. **Insulation Resistance:** 10,000 megohms each 25°C and 50% R.H. **Typical Capacitance:** Contact-contact, 2 picofarads; Coil-frame, 30 picofarads; Coil-contacts, 2 picofarads. **Temperature Range:** 55°C to 75°C. **Vibration:** 0.06" D.A., 5 to 55 Hz. 8 g, 55 to 110 Hz operating with no chatter. **Weight:** 0.8 to 1.4 oz.

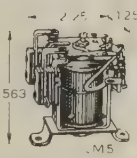
- Precision Made, Highly Versatile
- Long Life—Up to 10 Million Operations
- Three Contact Arrangements Available
- Dependable
- Low Cost
- With Transparent Enclosure, Solder Terminals and Mounting Stud

Stock No.	Mfr. Type	Coils Input	Coils Res. in Ohms	Coils Nom Power	Contacts Arrang.	Contacts Amps Typ. (Max.)	EACH 1-9	10-24	25-49	50-Up
	R10S-E1-Y1-JJ									
886-1160	-1.0K	2.3mA	1000	5mW	SPDT	2(3)	6.90	5.52	4.14	3.68
886-1162	-2.5K	1.4mA	2500	5mW	SPDT	2(3)	6.90	5.52	4.14	3.68
886-1164	-5.0K	1.0mA	5000	5mW	SPDT	2(3)	8.40	6.72	5.04	4.48
	R10S-E1-Y2-JJ									
886-1166	-1.0K	3.1mA	1000	10mW	2PDT	2(3)	6.90	5.52	4.14	3.68
886-1168	-2.5K	2.0mA	2500	10mW	2PDT	2(3)	6.90	5.52	4.14	3.68
886-1170	-5.0K	1.4mA	5000	10mW	2PDT	2(3)	8.40	6.72	5.04	4.48
	R10S-E1-Y4-JJ									
886-1172	-1.0K	4.5mA	1000	20mW	4PDT	2(3)	7.50	6.00	4.50	4.00

SERIES LM SENSITIVE 5-AMP RELAYS

Stock No.	Mfr's Type	Ohms	mA	Action	EACH 1-9	10-24	25-49	50-Up
886-0820	LM5	2500	6.3	SPDT	10.03	7.25	6.89	6.53
886-0822	LM5	10k	3.2	SPDT	10.25	8.20	7.79	7.38
886-0823	LM11	2500	9.0	DPDT	13.13	10.50	9.98	9.45
886-0824	LM11	5000	6.3	DPDT	13.25	10.60	10.07	9.54
886-0825	LM11	10k	4.5	DPDT	14.38	11.50	10.93	10.35

Armature spring-tension adjustment and adjustable residual screw permits setting for specific voltages and currents. (LM5; 0.1 to .015 watts. LM11; 0.2 to 0.07 watts.) Silver contacts rated at 5 amperes. LM5 is SPDT; LM11 is DPDT. Mounting, two 6-32 holes on 1 3/16" centers. Sizes: LM5, 2 5/16 x 1 1/4 x 2 7/16"; LM11, 2 5/16 x 2 5/32 x 2 1/2". Wt. 6 oz.



KCP ENCLOSED SENSITIVE 2-AMP RELAYS

Stock No.	Mfr's Type	Ohms	Action	EACH 1-9	10-24	25-49	50-Up
886-0525	KCP5	2500	SPDT	10.20	8.15	7.74	7.34
886-0526	KCP5	5000	SPDT	10.33	8.25	7.84	7.43
886-0527	KCP5	10,000	SPDT	10.95	8.75	8.31	7.88
886-0528	KCP11	2500	DPDT	10.84	8.65	8.22	7.79
886-0529	KCP11	5000	DPDT	10.95	8.75	8.31	7.88
886-0530	KCP11	10,000	DPDT	11.71	9.35	8.88	8.42
886-0531	KCP14	2500	3PDT	13.34	10.65	10.12	9.59
886-0532	KCP14	5000	3PDT	13.53	10.80	10.26	9.72
886-0533	KCP14	10,000	3PDT	14.21	11.35	10.78	10.22

In transparent, high-impact weatherproof case. KCP5 and KCP11 plug into standard octal socket; KCP14 plugs into standard 11-pin socket. Gold-flashed silver contacts rated 2 amps. Size, 1 13/32 x 1 13/32 x 2" high. See index for sockets. Shpg. wt. 4 oz.

Resist. (Ohms)	Single Pole Pull-in	Single Pole Sens.	Double Pole Pull-in	Double Pole Sens.	Three Pole Pull-in	Three Pole Sens.
2500	7.2 mA	125 mW	10.0 mA	250 mW	12.3 mA	375 mW
5000	5.0 mA	125 mW	7.2 mA	250 mW	8.7 mA	375 mW
10,000	3.6 mA	125 mW	5.0 mA	250 mW	6.1 mA	375 mW

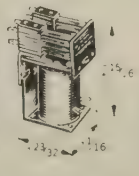
ML 3-AMP MIN. HI-SENSITIVITY DC RELAY

Excellent sensitivity with outstanding switching capabilities. Type ML11D is DPDT; ML17D is 4PDT. Ideal for transistorized computer networks, telephone systems. Single contact arms have 1/8" diameter gold-flashed contacts rated 3 amps (120 V, 60 Hz, resistive) for 10,000,000 operations. Solder lugs. Four 3-48 holes on 3/8" centers. 1 19/32 x 3/4 x 1 31/32". 3 oz.

Stock No.	Type ML-	Coil Ohms	Coil mA	EACH 1-9	10-24	25-49	50-Up
886-0875	11D	2500	4.0	17.06	13.65	12.97	12.29

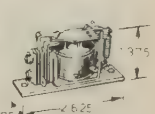
GB SENSITIVE 5-AMP RELAYS

Sensitivity: 115 mW for single pole, and 275 mW for 4 pole. DPDT silver contacts are designed for maximum self-cleaning action for minimized maintenance. (Pick-up is not adjustable.) Contacts rated 5 amperes. Mounting: 8-32 tapped core and locating half-punch. 2 15/32 x 1 23/32 x 1 1/16". 6 oz.



Stock No.	Mfr's Type	Coil mA	Coil Ohms	EACH 1-9	10-24	25-49	50-Up
886-0209	GB11D	7.0	2500	15.00	13.00	12.00	11.00
886-0208	GB11D	5.0	5000	15.00	13.00	12.00	11.00

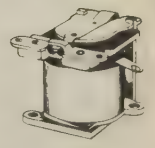
LB-5 SENSITIVE 5-AMPERE RELAYS



For any circuit supplying as little as 200 milliwatts of DC. Breakdown, 500 V rms. Contacts: 5 amps, 28 V, SPDT action. Adjustable. For DC only. Mounting, two 3/16" holes on 2 7/32" centers. Shpg. wt. 3 oz.

Stock No.	Ohms	mA	EACH 1-9	10-24	25-49	50-Up
886-0815	2500	9	9.37	5.00	4.75	4.50
886-0816	5000	6.3	10.12	5.40	5.13	4.86
886-0817	10,000	4.5	10.87	5.80	5.51	5.22

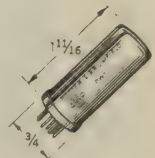
RS5D SENSITIVE 2-AMP RELAYS



Sensitivity, 60 mW. Operate, 25 ms; release, less than 5 ms. SPDT contacts rated 2 amps. *6 VDC type. Size, .938 x 1 x 1.172". Shpg. wt. 2 oz

Stock No.	Ohms	mA	EACH 1-9	10-24	25-49	50-Up
886-1275	335	*	11.62	6.20	5.89	5.58
886-1276	1350	*	11.62	6.20	5.89	5.58
886-1279	10k	2.5	12.27	7.10	6.75	6.39

PW HERMETICALLY SEALED 1-AMP RELAYS

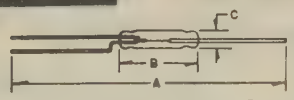


Precision, lightweight DC relays. DS suffix are voltage-actuated. LS current-actuated. Mounts in 7-pin miniature tube socket. Silver contacts rated at 1 amp. 49/64" dia.; 1 11/16" high. 2 oz

Stock No.	Mfr's Type	VDC	Ohms	EACH 1-9	10-24	25-49	50-Up
886-1025	PW5LS	2.8	5000	22.68	18.15	17.24	16.34
886-1024	PW5LS	2.0	10,000	23.75	19.00	19.05	17.10

13

Precision Magnetic Reed Switches



Type MRG-DT—SPDT Form C
ACTUAL SIZE 2.125"

Type MRR-2 –SPST Form A
ACTUAL SIZE 2.250"

MAGNETS FOR SWITCHES AT RIGHT, BELOW

Stock No.	Mfr's Type	Size Inches	EACH 1-9	EACH 10-Up
807-0001	H-31-604	⅛x⅛x½	.50	.30
807-0002	H-32-605	⅛x⅜x1	.63	.35
807R0003	H-33-606	¼x⅜x¾	.50	.30
807R0004	H-34-607	¼x¼x1	.75	.40

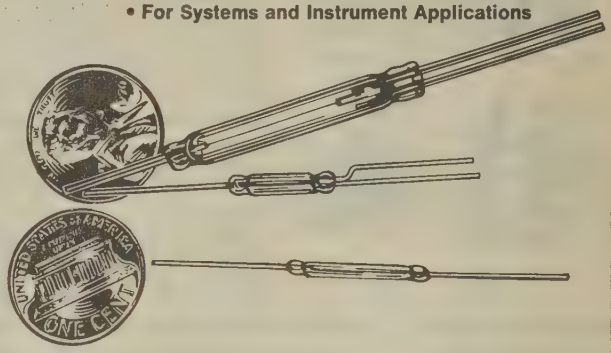
DRY AND MERCURY-WETTED TYPE REED SWITCHES

- **Ultra Compact and Highly Sensitive—Rapid Cycling Rate**
- **Hermetically Sealed**
- **Unaffected by Temperature Extremes or Pressure**
- **For Systems and Instrument Applications**

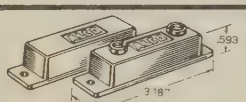
Precision crafted for reliable operation under the most critical conditions. Offer excellent flexibility in a broad range of applications. Hermetically sealed for safe, dependable use in any atmosphere—even under explosive conditions.

Unaffected by high or low temperature extremes or pressure. Compact size with high sensitivity and rapid cycling rate. Excellent for use in position indicators, counting instruments, limiting switches, flow meters, communications instruments and reed relays. Actuating time: 1 millisecond or less.

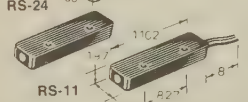
Dry reed switches have life expectancy of 10 million operations mercury-wetted switches 1 billion operations. Contacts: Form A (SPST-N.O.) or C (SPDT). May be actuated by permanent or electro magnets. Permanent magnets sold at left. Av. shpg. wt., 1 oz. each.



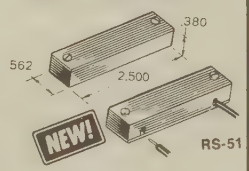
PROXIMITY MAGNETIC REED SWITCHES



RS-24



RS-11

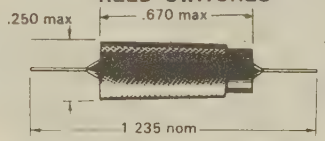


RS-51

RS-24—Alnico-5 magnet actuates reed switch within distance of 1". Rated 0.5 amps break, 1.0 amps carry, over 5-million operations. **Miniature RS-11**—Alnico-5 magnet actuates reed switch within distance of .39". Current rating "50 VDC: .15 amps breaks, .5 amps carry. 200 VDC breakdown. Life: 10-million cycles. **RS-51**—Alnico-5 magnet actuates reed switch within distance of 1" Rated 5 amps "VDC Life. 10,000,000 cycles. *Apart.

Stock No.	Mfr's. Type	Description	EACH 1-9	EACH 10-24	EACH 25-99	EACH 100-Up
700-7065	RS-11-NC	N.C. Pair*	4.03	3.75	2.55	2.25
700-7066	RS-11-NO	N.O. Pair*	3.08	2.85	1.94	1.71
700-7067	RS-24-NC	N.C. Pair*	4.03	3.75	2.55	2.25
700-7068	RS-24-NO	N.O. Pair*	3.70	3.45	2.35	2.07
700-7070	RS-51-NC	N.C. Pair*	2.43	2.25	1.53	1.35
700-7075	RS-51-NO	N.O. Pair*	2.10	1.50	1.33	1.17

TEMPERATURE SENSING REED SWITCHES



For Instrumentation, Liquids or Semi-Solids where Temperature Control is Required

TS SERIES. Single pole single throw (SPST) temperature sensing reed switches available in normally closed (Form B) or normally open (Form A) designs. Feature automatic resetting, high repeatability, compact size and very long life. Typical applications include sensing temperature increases in highly sophisticated instrumentation, in liquids or semi-solids or anywhere that temperature control is required. Contact rating: 10 W max.; 12 VA. Voltage: 100 VDC max.; 120 VAC max. Current: carry, 1 amps max.; break, 1 amp max.; make, .5 amp max. Five degree nominal increments are standard and the operate range is ±5°C. Overall length, 1.235". Nom. diameter, .250" max. Av. wt. 1.3 grams. *NOTE: these temperature sensing reed switches may be affected by ferromagnetic material. Other very strong magnetic fields in close proximity to these switches may cause failure or erratic operation.*

FORM B—NORMALLY CLOSED

Stock No.	Mfr's Type	Temp. °C.	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
807-6500	TS0B0	0	3.25	2.60	1.90	1.70
807-6502	TS50B0	50	3.25	2.60	1.90	1.70
807-6503	TS70B0	70	3.25	2.60	1.90	1.70
807-6504	TS100B0	100	3.25	2.60	1.90	1.70

FORM A—NORMALLY OPEN

807-6505	TS0A1	0	5.63	4.50	3.60	3.28
807-6507	TS50A1	50	5.63	4.50	3.60	3.28
807-6508	TS70A1	70	5.63	4.50	3.60	3.28
807-6509	TS100A1	100	5.63	4.50	3.60	3.28

MINIATURE MAGNETIC REED SWITCHES

MRR-2-185: Rhodium contacts, mini. form A; **MRH-15-185:** 10^{15} ohms insul. res.; **MLC-2-186:** Economy Form A.

Stock No.	Mfr's Type	Size Code	Form	Max. DC Contact Ratings, W	Max. Amps	Max. DC Volts	Min. VDC Breakdown	Stock Ampere Turn Pull-in	Actuating Magnet	EACH 1-9	EACH 10-24	EACH 25-Up
807R0030	MRR-2-185	6	A	10	500	200	300	30±7.5	H-33	2.07	1.66	.94
807-0064	MLC-2-186	10	A	10	500	100	300	30±10	H-33	1.82	1.46	.83

SUB-MINIATURE MAGNETIC REED SWITCH

MSRR-2-185: Rhodium contacts, submini. form A;

807R0037	MSRR-2-185	5	A	10	500	200	300	30±7.5	H-33	2.07	1.66	.94

TINY MAGNETIC REED SWITCHES

MTRR-2-185: Off Ctr. gap, rhodium contacts; **MRG-DT-175:** Mini form C; **MLC-DT-186:** Economy Form C.

807-0025	MRG-DT-175	4	C	3	.250	28	250	27.5±7.5	H-33	7.03	5.62	3.39
807-0065	MLC-DT-186	4	C	3	.250	28	250	30±10	H-33	5.38	4.30	2.64

MICRO AND MINI MAGNETIC REED SWITCHES

MMRR-2-185: Smallest off-ctr. gap switch; **MINI-2-115:** Smallest ctr. gap switch.

807-0022	MMRR-2-185	1	A	3	.010	28	250	30±7.5	H-31	3.30	2.64	1.50
807-0020	MINI-2-115	2	A	3	.110	28	200	30±7.5	H-31	2.90	2.32	1.31

STANDARD MAGNETIC REED SWITCHES

DRG-2-425: Gold contacts, std. form A; **DRR-1-425:** Rhodium contacts, std. form A; **DRR-5-425:** Hi breakdown voltages; **DRT-5-425:** Inductive loads.

807-0014	DRR-1-425	8	A	15	1.0	400	500	70±7.5	H-34	2.48	1.98	1.12
807-0015	DRR-5-425	8	A	25	1.0	1000	1500	70±7.5	H-34	2.65	2.12	1.28
807-0018	DRT-5-425	8	A	50	3.0	1000	1500	70±7.5	H-34	4.95	3.96	2.50

COMPACT MAGNETIC REED SWITCHES

DRR-DTH-445: Hi breakdown voltage; **DRT-DTH-445:** Inductive loads; **DLC-DT-327:** Economy Form C.

Stock No.	Mfr's Type	Size Code	Form	Max. DC Contact Ratings, W	Max. Amps	Max. DC Volts	Min. VDC Breakdown	Stock Ampere Turn Pull-in	Actuating Magnet	EACH 1-9	EACH 10-24	EACH 25-Up
807-0006	DRR-DTH-445	7	C	10	.5	250	1000	72.5.7.5	H-32	4.23	3.38	2.20
807-0007	DRT-DTH-445	7	C	20	1.5	500	1000	72.5.7.5	H-32	8.25	6.60	4.25
807-0063	DLC-DT-327	7	C	10	.5	200	350	5515	H-32	2.07	1.66	1.16

HIGH CURRENT MAGNETIC REED SWITCH

SRT-2-455: Power switch, 1 amp;

807-0070	SRT-2-455	9	A	100	1.0	28	300	75±7.5	H-32	4.63	3.70	2.00

HIGH-VOLTAGE MAGNETIC REED SWITCH

High breakdown voltage for **DRVT-5-658** is 5 KVDC; **DRVT-10-658,** 10 KVDC;

807-0009	DRVT-10-658	8	A	50	3.0	7500	10000	120±20	H-34	8.43	6.74	3.97

MERCURY-WETTED MAGNETIC REED SWITCH

Replaces MRC and HRC types.

807-0080	MDC-1-387	6	A	50	2	100	1000	65±15	H-23	7.02	5.62	3.39

DIMENSION CHART FOR SWITCHES

Size Code	1	2	3	4	5	6	7	8	9	10
(A) Overall L. Nom.	2.000	2.000	2.125	2.125	2.250	2.250	3.375	3.125	3.465	2.250
(B) Glass L. Max.	.375	.500	.560	.610	.800	.800	1.562	2.100	1.640	.800
(C) Glass Dia. Max.	.090	070	.092	.130	.090	.130	.218	.218	.212	.105

Reed Relays, Coaxial Relays & Switches

DUAL INLINE MINIATURE REED RELAYS

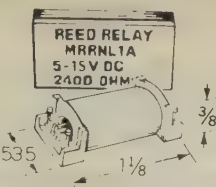
DIP dry reed relays are specifically designed for the same mounting as standard 14-pin dual-in-line integrated circuit sockets. Model MRR1AD fits standard 14-pin socket. Standard contact configurations are one Form A (1A=SPST-NO), two Form A (2A=DPST-NC) and one Form C (1C=SPDT). Operate time: 1 ms. max. (2 ms. for 1 C). Ambient temp: −10 to +70°C (1ADSR −10 to +25°C). Life: 5 million max. rating, 10 million ½ max. rating, 20 million dry circuit.

Stock No.	Mfr's Type	Nom. V	Res. Ohms	Power mW	Cont. VA	EACH 1-9	EACH 10-Up
929-3785	MRR1ADSR	5	500	50	10	5.43	3.50
929-3782	MRR1ADS	5	360	70	3	4.65	3.00
929-3776	MRR1ADS	6	360	100	3	4.65	3.00
929-3777	MRR1ADS	12	1440	100	3	4.65	3.00
929-3773	MRR1CDL	5	100	250	3	9.30	6.00
929-3775	MRR1CDL	12	500	285	3	9.30	6.00
929-3778	MRR2ADLX	5	125	200	10	7.75	5.00
929-3780	MRR2ADLX	12	500	295	10	7.75	5.00

SPDT MERCURY WETTED REED RELAYS

Series W133 MPC. 50 VA at up to 400 VAC resistive. Operate time, 2 milliseconds average. Operates upright or up to 30° from vertical. Life expectancy more than 25 million operations. 50 milliohm contact resistance. Snap-on steel enclosure. Printed circuit pins on 0.2" grid. 2⅝ x 41/64 x ¾". 4 oz.

Stock No.	Mfr's Type W133	Coil V	Coil Ohms	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
850-1796	MPCX2	6	70	13.60	11.83	10.65	10.06
850-1797	MPCX3	12	250	13.60	11.83	10.65	10.06
850-1798	MPCX4	24	1000	13.60	11.83	10.65	10.06



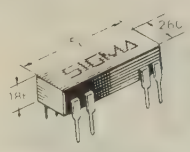
MRRNL SERIES MAGNETIC LATCHING RELAY

- Steel Cover Provides Magnetic Shielding
- Coils Bifilar Wound
- Compact Size

Steel cover provides magnetic shielding and mechanical protection. Coils are bifilar wound. Must Operate Voltage: 3.0 VDC Operate Time: 1 msec typical. Release Time: 1 msec typical. Size: 1⅛ x ⅜ x .535".

Stock No.	Mfr's Type	Contacts	Coil VDC	DC Load	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
929-3657	MRRNL1A	1A	12	10W	9.45	6.10	5.79	5.04

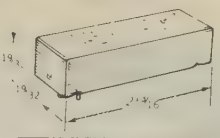
DIL SERIES 191 SPST, DPST, SPDT



Standard 14-pin, dual-in-line package reed relays. Operating time: 1.0 ms (Max) at rated voltage. Isolation resistance: 10^9 ohm (Min). Ratings: Form 1A and 2A, 0.5 watt. Form 1C, 0. 25 watt. May be supplied with internal diode suppression electromagnetic and electrostatic shielding. Average shipping weight: 1 ounce.

Stock No.	Type 191TE-	Coil Rating VDC	Coil Rating Ohms	Coil Rating Form	EACH 1-9	EACH 10-49	EACH 50-74	EACH 75-Up
917-1202	1A1-5S	5	500	1A	5.90	3.30	3.14	2.97
917-1205	1A1-12G	12	1250	1A	6.20	3.30	3.14	2.97
917-1213	2A1-5G	5	200	2A	11.45	6.10	5.80	5.49
917-1208	1C1-5S	5	200	1C	9.38	5.00	4.75	4.50
917-1211	1C1-12G	12	500	1C	9.38	5.00	4.75	4.50

JR SERIES REED RELAYS



Insulated Hermetically sealed. PC pin terminals Form A: SPST, N.O. Form C SPDP, N.C., break-before-make. Operating Time: 3 ms Temp: −50 to +85°C. Breakdown: 500 V rms. 60 Hz. Wt . 2½ oz

Stock No.	Type JR-	Coil VDC	Coil Ohms	Contact Form	Contact W	EACH 1-9	EACH 10-24	EACH 25-Up
886-0342	1005	12	600	1A	15	5.95	3.28	2.79
886-0358	1045	12	600	1C	10	12.75	7.05	6.00
886-0347	1010	24	2400	1A	15	6.47	3.58	3.05
886-0348	1011	24	1600	2A	15	8.02	4.44	3.78
886-0360	1050	24	2400	1C	10	12.70	7.01	5.97

MRR AND RR SERIES RELAYS WITH AXIAL LEADS

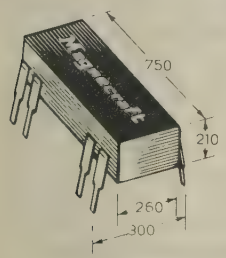
Leads rigidly epoxy-molded into one-piece units. Leads solder directly to terminal studs or supporting wiring, or bent at right angles for PC's. Wrap-around metal cans provide magnetic shielding. **MRR** Series miniature type, 15 watts. **RR** Series standard size, 15 watts. Terminal grid spacing. **MRR** Series 0.115", **RR** Series. 0.2"

MMR SERIES WITH MINIATURE REED SWITCHES
Size: 1.062 x 425 d.

Stock No.	Mfr's Type	Contacts	Coil VDC	Coil Ohms	EACH 1-9	EACH 10-Up
929-3796	MRR1A	1A	6	288	7.25	4.70
929-3797	MRR1A	1A	12	1152	7.25	4.70
929-3798	MRR1A	1A	24	4600	10.70	6.90

RR SERIES WITH STANDARD SIZE REED SWITCHES
Size: 1.875 x .670 x .840

Stock No.	Mfr's Type	Contacts	Coil VDC	Coil Ohms	EACH 1-9	EACH 10-Up
929-4608	RR1A†	1A	24	1440	5.63	3.60



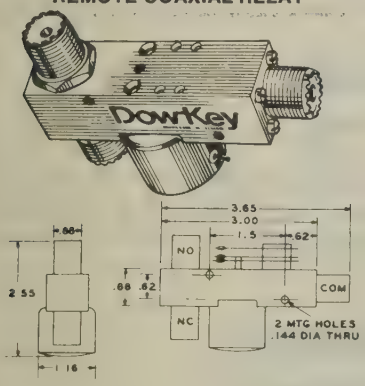
- 8-Pin Reed Relays
- Compatible With Standard IC Packaging
- Offers Quality at Low Cost
- For High-Density Packaged Circuits
- Offers The Optimum In Automatic Insertion

DUAL INLINE REED RELAYS

DIP (dual inline package) line of 8 pin reed relays. These relays are designed not only to be compatible with the standard packaging developed for integrated circuits, but to offer quality at low cost. This unique design gives further savings by offering the user the optimum in automated insertion and other economical installation techniques associated with printed applications. Ideal for use in circuits where high density packaging is essential.

Stock No.	Mfr's Type	Contacts and Ratings	Coil Max. VDC Pickup	Coil Volts	Coil Ohms	Coil Typ. mW Required	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
850-1550	W107DIP-1	SPST NO 1 Form A 3 VA	4	5	500	50	7.60	4.41	3.97	3.75
850-1552	W107DIP-3	SPST NO 1 Form A 3 VA	9.6	12	500	300	6.65	3.86	3.47	3.28
850-1554	W107DIP-5	SPST NO 1 Form A 3 VA	4	5	500	50	8.95	5.19	4.67	4.41
850-1316	W117DIP-9	DPST NO 2 Form A 3 VA	4	5	200	130	10.92	6.34	5.71	5.39
850-1326	W118DIP-1	SPDT 1 Form C 6 VA	4	5	200	130	12.50	8.60	7.74	7.31
850-1334	W118DIP-5	SPDT 1 Form C 6 VA	4	5	200	130	12.94	9.38	8.44	7.97

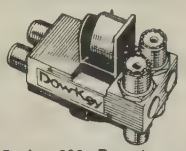
SERIES 60 SPDT REMOTE COAXIAL RELAY

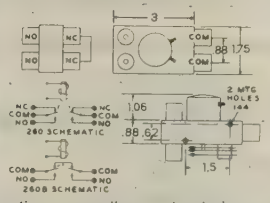


Remotely operated, ruggedly constructed, SPDT coaxial relays for operation to one kW. Specifications following for use in 50-ohm transmission line. UHF connectors not recommended above 400 MHz. Operating time, 25 ms. max. Gold plated silver contacts. *Has two Form C 5A, 115VAC auxiliary contacts. † Has 2C aux. plus high-isolation "G" connector at the NC or receive position, for transmit-receive applications. "G" connector increases the isolation to greater than −100 dB at frequencies up to 500 MHz, but reduces power rating of the NC connector to 20 watts.

Stock No.	Mfr's Type	Coil V	EACH 1-4	EACH 5-9	EACH 10-Up
771-6711	60-2604	115AC	42.08	37.87	30.79
771-6722	60-260442*	115AC	46.58	41.92	34.08
771-6717	60-222842†	12DC	46.58	41.92	34.08
771-6724	60-262842†	115AC	51.08	45.97	37.37

DPDT REMOTE COAXIAL RELAY

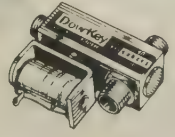


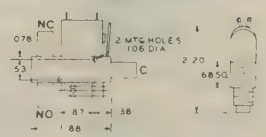


Series 260. Remote operation, ruggedly constructed coaxial relay designed for use from low level to one kilowatt. The 260 is a standard DPDT switch with six connectors. Specifications: Operating time, 25 ms. Life expectancy, 1,000,000 cycles. Contacts, gold-plated fine silver. UHF connector type. Weight, 12 oz.

Stock No.	Mfr's Type	Coil V	EACH 1-4	EACH 5-9	EACH 10-Up
771-6782	260-2604	115AC	73.23	65.90	53.47

SERIES 77 SPDT REMOTE COAXIAL RELAY

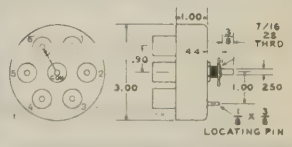




Medium size, lightweight relay for industrial and less critical military applications. The "T" shaped connector configuration has the common connector at one end and the NO and NC connectors 180° apart at the other end. With one set of Form C auxiliary contacts. Operating time, 15 ms. max. BNC connector type. Gold plated silver contacts. Weight, 3 oz.

Stock No.	Mfr's Type	Coil V	EACH 1-4	EACH 5-9	EACH 10-Up
771-6742	77-230232	26DC	39.16	35.24	28.59

SERIES 78 MULTI-POSITION COAXIAL SWITCH



Manually operated switches using coaxial switching members rather than wafer switches. The unused connectors are of the open, non-shorting type. Mounting: Clearance hole for 7/16 thread and 9/64 hole for locating pin. With mounting nut, lockwasher, knob, escutcheon plate. Gold plated silver contacts. Life expectancy, 100,000 cycles min. Silver plated connectors. Weight, 10 oz.

CONNECTOR LOCATIONS VS. FUNCTION

Function	Connector Location
1P3T	1, 3, 5 and C
1P6T	1, 2, 3, 4, 5, 6 and C

1P3T SWITCH WITH UHF CONNECTOR

Stock No.	Mfr's Type	EACH 1-4	EACH 5-9	EACH 10-Up
771-6756	78-0304	44.33	39.90	32.43

1P6T SWITCH WITH UHF CONNECTOR

Stock No.	Mfr's Type	EACH 1-4	EACH 5-9	EACH 10-Up
771-6761	78-0604	49.58	44.62	36.28

1P6T SWITCH WITH BNC CONNECTOR

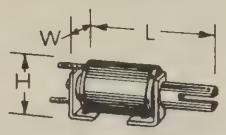
Stock No.	Mfr's Type	EACH 1-4	EACH 5-9	EACH 10-Up
771-6759	78-0602	56.50	50.85	41 34

13

Solenoids

INDUSTRIAL AC AND DC SOLENOIDS

Solenoids in a wide selection of voltages and sizes. Types 11 and 28 are for either AC or DC voltages. Laminated solenoids Types 16 and 18 are for AC operation only. Choose from *Intermittent or †Continuous styles; intermittent-duty coils should not be energized for more than five consecutive minutes or be permitted to rise more than 85°C above 25°C ambient without time for cooling between cycles; continuous-duty types will not have a temperature rise of more than 85°C at rated voltage and ambient.



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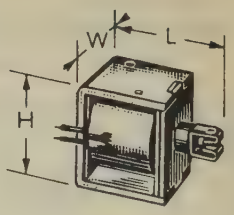

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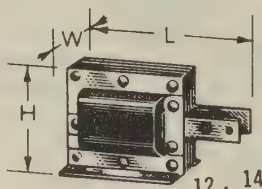
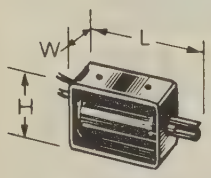
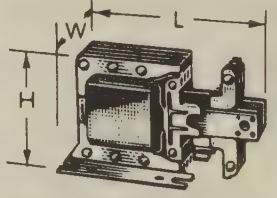


12, 14



2, 4, 11



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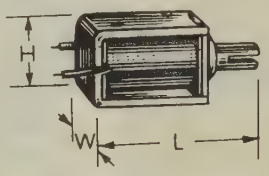

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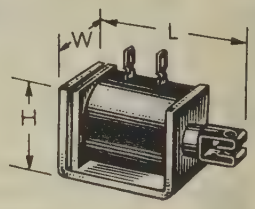

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AC TYPES (SPECIFY TYPE NO., VOLTS AND DUTY)

*INTERMITTENT † CONTINUOUS

Stock No.	Mfr's Type	Volts	Ohms	Stroke and Lift Ounces @ Inches Min.	Stroke and Lift Ounces @ Inches Max.	Size, Inches (HxWxL)	Shpg. Wt., Oz.	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
802-1003	1A1*	120	300	8 @ 1/8	2 @ 1/2	1 1/16 x 15/16 x 1 3/4	4 1/2	6.33	4.40	3.96	3.74
802-1009	2*	120	60	33 @ 1/8	4.5 @ 3/8	1 3/8 x 1 1/16 x 1 9/16	10	8.58	5.96	5.36	5.07
802-1037	4*	120	37	23 @ 1/8	22 @ 1	1 5/8 x 1 1/16 x 2	14 1/2	10.20	7.10	6.39	6.04
802-1032	4†	120	133	8 @ 1/8	6 @ 1	1 5/8 x 1 1/16 x 2	14 1/2	10.20	7.10	6.39	6.04
802-1057	11†	24	8	12 @ 1/8	1 @ 1	1 3/16 x 1 27/32 x 1 5/16	7 1/2	5.98	4.16	3.74	3.54
802-1070	11*	115	85	25 @ 1/8	6 @ 1	1 3/16 x 1 27/32 x 1 5/16	7 1/2	5.98	4.16	3.74	3.54
802-1061	11†	115	200	12 @ 1/8	1 @ 1	1 3/16 x 1 27/32 x 1 5/16	7 1/2	5.98	4.16	3.74	3.54
802-1082	12*	115	100	32 @ 1/8	4 @ 1	1 7/16 x 1 3/16 x 1 5/8	6	8.48	5.90	5.31	5.02
802-1080	12†	115	150	22 @ 1/8	6 @ 3/4	1 7/16 x 1 3/16 x 1 5/8	6	8.48	5.90	5.31	5.02
802-1087	14*	115	11	110 @ 1/8	50 @ 1 1/2	2 1/16 x 1 15/16 x 2 7/16	19	11.85	8.24	7.42	7.00
802-1085	14†	115	18	60 @ 1/8	35 @ 1 1/2	2 1/16 x 1 15/16 x 2 7/16	19	11.85	8.24	7.42	7.00
802-1094	16*	115	41	90 @ 1/8	30 @ 3/4	1 7/16 x 1 1/4 x 1 3/8	7 1/2	8.58	5.96	5.36	5.07
802-1090	16†	115	85	50 @ 1/8	10 @ 3/4	1 7/16 x 1 1/4 x 1 3/8	7 1/2	8.58	5.96	5.36	5.07
802-1104	18*	115	8.8	280 @ 1/8	80 @ 1	2 1/16 x 1 13/16 x 2 1/2	16 1/2	11.25	7.82	7.04	6.65
802-1100	18†	115	19.7	145 @ 1/8	40 @ 1	2 1/16 x 1 13/16 x 2 1/2	16 1/2	11.25	7.82	7.04	6.65
802-1106	18*	230	45	280 @ 1/8	80 @ 1	2 1/16 x 1 13/16 x 2 1/2	16 1/2	11.43	7.94	7.15	6.75
802-1102	18†	230	78	145 @ 1/8	40 @ 1	2 1/16 x 1 13/16 x 2 1/2	16 1/2	11.43	7.94	7.15	6.75
802-1130	24†	115	500	10 @ 1/16	2 @ 5/8	1 x 27/32 x 1 1/4	3	5.78	4.02	3.62	3.42
802-1156	28†	115	400	20 @ 1/16	2.5 @ 1/2	1 3/16 x 1 15/16 x 1 1/8	3 1/2	5.78	4.02	3.62	3.42

DC TYPES (SPECIFY TYPE NO., VOLTS AND DUTY)

*INTERMITTENT † CONTINUOUS

Stock No.	Mfr's Type	Volts	Ohms	Stroke and Lift Ounces @ Inches Min.	Stroke and Lift Ounces @ Inches Max.	Size, Inches (HxWxL)	Shpg. Wt., Oz.	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
802-1016	2HD*	24	20	100 @ 1/8	5 @ 3/4	1 11/16 x 1 7/16 x 1 25/32	13	11.42	10.52	9.47	8.94
802-1039	4*	115	346	110 @ 1/8	4 @ 1	1 5/8 x 1 7/16 x 2 1/16	14 1/2	10.20	7.10	6.39	6.04
802-1047	4HD*	24	15	156 @ 1/8	21 @ 3/4	1 5/8 x 1 1/16 x 2 3/16	15	10.85	7.55	6.80	6.42
802-1042	4HD†	24	50	70 @ 1/8	1 @ 3/4	1 5/8 x 1 7/16 x 2 3/16	15	10.85	7.55	6.80	6.42
802-1064	11*	6	2	34 @ 1/8	2 @ 1/8	1 3/16 x 15/16 x 1 1/8	7 1/2	5.98	4.16	3.74	3.54
802-1068	11*	24	32	34 @ 1/8	2 @ 1/8	1 3/16 x 1 27/32 x 1 5/16	7 1/2	5.98	4.16	3.74	3.54
802-1059	11†	24	72	25 @ 1/8	1 @ 1/8	1 3/16 x 1 27/32 x 1 5/16	7 1/2	5.98	4.16	3.74	3.54
802-1063	11P†	24	72	25 @ 1/8	1 @ 1/8	1 3/16 x 15/16 x 1 1/8	7 1/2	6.93	4.82	4.34	4.10
802-1115	22*	6	4	24 @ 1/16	1 @ 3/8	3/4 x 3/4 x 1 1/4	2 1/2	4.98	3.46	3.11	2.94
802-1111	22†	6	9	13 @ 1/16	.5 @ 3/8	3/4 x 3/4 x 1 1/4	2 1/2	4.98	3.46	3.11	2.94
802-1113	22†	24	144	13 @ 1/16	.5 @ 3/8	3/4 x 3/4 x 1 1/4	2 1/2	4.98	3.46	3.11	2.94
802-1150	28†	12	27	24 @ 1/16	1 @ 3/8	1 3/16 x 15/16 x 1 1/8	3 1/2	5.33	3.70	3.33	3.15
802-1163	28*	24	50	35 @ 1/16	2 @ 1/2	1 3/16 x 15/16 x 1 1/8	3 1/2	5.33	3.70	3.33	3.15
802-1154	28†	24	104	24 @ 1/16	1 @ 3/8	1 3/16 x 15/16 x 1 1/8	3 1/2	5.33	3.70	3.33	3.15

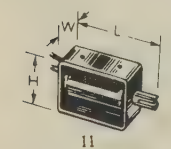
Please specify Allied Stock Number, Manufacturer's Type Number, Volts and Duty.

13

DC PULL-TYPE OR AC/DC PUSH-TYPE SOLENOIDS

12, 24 AND 120 VOLT AC/DC PUSH-TYPES

Intermittent or continuous duty. Lengths of the push rods are equal to the maximum stroke length specified. Type 11P and 28P are approximately 20% less power than listed. Other specifications same as Tubular Pull Types.



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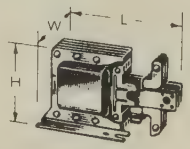

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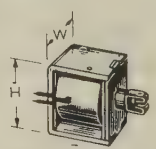

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Stock No.	Mfr's Type	Duty	Volts	Ohms	Strokes and Lift Ounces @ Inches Min.	Strokes and Lift Ounces @ Inches Max.	Size L. x Dia.	Shpg. Wt., Oz.	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
802-1071	11P	Int.	24AC	3.5	25 @ 1/8	6 @ 1/2	1 5/16 x 1 27/32 x 3/16	7 1/2	6.93	4.82	4.34	4.10
802-1062	11P	Cont	24AC	8	12 @ 1/8	1 @ 1	1 5/16 x 1 27/32 x 3/16	7 1/2	6.93	4.82	4.34	4.10
802-1072	11P	Int	120AC	85	25 @ 1/8	6 @ 1	1 5/16 x 1 27/32 x 3/16	7 1/2	6.93	4.82	4.34	4.10
802-1065	11P	Cont	120AC	200	12 @ 1/8	1 @ 1	1 5/16 x 1 27/32 x 3/16	7 1/2	6.93	4.82	4.34	4.10
802-1096	16P	Int	120AC	41	90 @ 1/8	30 @ 3/4	1 3/8 x 1 1/4 x 1 3/8	7 1/2	9.83	6.84	6.16	5.81
802-1097	16P	Cont	120AC	85	50 @ 1/8	10 @ 3/4	1 3/8 x 1 1/4 x 1 3/8	7 1/2	9.83	6.84	6.16	5.81
802-1107	18P	Int.	120AC	8.8	280 @ 1/8	80 @ 1	2 1/16 x 1 13/16 x 2 1/2	16 1/2	13.25	9.22	8.30	7.84
802-1108	18P	Cont.	120AC	19.7	145 @ 1/8	40 @ 1	2 1/16 x 1 13/16 x 2 1/2	16 1/2	13.25	9.22	8.30	7.84
802-1143	28P	Cont.	24AC	17.4	20 @ 1/16	2.5 @ 1/2	1 3/16 x 1 5/16 x 1 1/8	3 1/2	6.10	4.25	3.83	3.61
802-1147	28P	Cont.	12DC	27	24 @ 1/16	1 @ 3/8	1 3/16 x 1 5/16 x 1 1/2	3 1/2	5.90	4.10	3.69	3.49

TUBULAR PULL TYPES— 12 AND 24 VDC

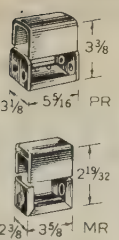
Intermittent types should not be energized over 5 minutes or allowed to rise beyond 85°C above 25°C ambient temp. without cooling. Continuous types will not have temperature rise of more than 85°C above 25°C ambient @ rated voltage. Threaded bushing. Life, 10,000,000 operations. *Push-type.

Stock No.	Mfr's Type	Duty	Volts	Ohms	Strokes and Lift Ounces @ Inches Min.	Strokes and Lift Ounces @ Inches Max.	Size L. x Dia.	Shpg. Wt., Oz.	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
802-0538	TP8X16*	Int.	24DC	15	65 @ 1/10	1 1/4 @ 1/4	1x1 1/2	1	10.92	7.60	6.84	6.46
802-0550	T3.5X9	Cont.	24DC	295	4.5 @ 1/32	.25 @ 3/16	1 3/8 x 7/16	2	7.30	5.08	4.57	4.32
802-0560	T4X12	Int.	24DC	48	15 @ 1/32	1 @ 3/4	1 1/2 x 1/2	9	7.32	5.10	4.59	4.34
802-0564	T4X16	Int.	24DC	29	17 @ 1/32	.5 @ 1 1/8	2x1/2	15	8.10	5.64	5.08	4.79
802-0565	T6X12	Cont.	12DC	41	16 @ 1/16	1 @ 1/2	1 1/2 x 3/4	14	7.87	5.47	4.92	4.65
802-0566	6X12	Cont.	24DC	125	16 @ 1/16	1.5 @ 1/2	1 1/2 x 3/4	14	7.88	5.47	4.92	4.65
802-0568	6X12	Int	24DC	48	30 @ 1/16	1 @ 7/8	1 1/2 x 3/4	14	7.70	5.36	4.82	4.56
802-0573	T8X16	Cont.	12DC	26	32 @ 1/16	2 @ 5/8	2x1	6	9.50	6.60	5.94	5.61
802-0574	T8X16	Cont.	24DC	95	32 @ 1/16	2 @ 3/4	2x1	6	9.50	6.60	5.94	5.61
802-0580	T12C13	Int.	24DC	14	150 @ 1/8	8 @ 3/8	1 3/8 x 1 1/2	10	12.77	8.88	7.99	7.55
802-0578	T12X13	Cont.	24DC	90	48 @ 1/8	1 @ 1/2	1 3/8 x 1 1/2	10	12.80	8.90	8.01	7.57
802-0584	T12X19	Int	24DC	9.5	165 @ 1/8	6 @ 1 1/2	2 3/8 x 1 1/2	10	13.57	9.44	8.50	8.02
802-0582	T12X19	Cont.	24DC	59	80 @ 1/8	1 @ 1 1/4	2 3/8 x 1 1/4	10	13.67	9.52	8.57	8.09

Allied Electronics Has a Broad Line of Precision-Made Solenoids

Relay Sockets and Precision Tools

RELAY COVERS FOR PR, PM, AND MR



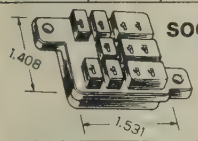
TYPE 35D013. Has sheet steel base; knockouts for ½"-dia. conduit and aluminum cover with 2 screws. Gray enamel. 3⅛x3⅜x5 5/16". Mounts 3 No. 10 holes on 1⅞x4⅛" centers. Wt., 1 lb.

TYPE 35D227. Size, 3 13/16x3 13/16x5⅝". 1 lb.

TYPE 35D130. Size, 2 19/32x2⅜x3⅝". 8½ oz.

Stock No.	Mfr's Type	Use With	EACH 1-9	10-24	25-49	50-Up
886R1455	35D013	PR	6.80	4.95	4.70	4.46
886-1480	35D227	PM	10.50	6.00	5.70	5.40
886-1470	35D130	MR	5.77	3.30	3.14	2.97

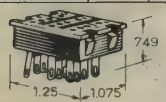
SOCKETS FOR KUP SERIES



Standard: all are rated 10 amperes. Will accept .187-in. terminals of all Series KU and plain case Series KUP relays. *Type 9KU3 hold-down spring.

Stock No.	Mfr's Type	Socket Term.	EACH 1-9	10-24	25-49	50-Up
886R1420	9KU1	Solder	1.23	.89	.85	.80
886-1421	9KU2	P.C.	1.66	1.05	1.00	.95
886R1425	9KU6	Screw	6.12	4.45	4.23	4.00
886-1422	9KU3	*Spring	.25	.20	.19	.18

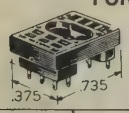
FOR SERIES KNP RELAYS



SPDT/DPDT/3PDT solder terminal sockets or SPDT/DPDT/3PDT printed circuit terminal sockets. *hold-down springs.

Stock No.	Mfr's Type	Socket Term.	EACH 1-9	10-24	25-49	50-Up
886-1413	9KN1	Solder	1.03	.76	.72	.69
886-1414	9KN2	P.C.	1.03	.76	.72	.69
886-1415	9KN3	*	.17	.13	.10	.09

FOR SERIES R10 RELAYS



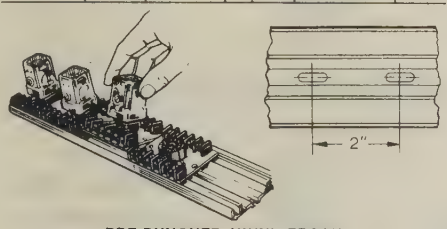
Type 9XR10-1, 2PDT socket, spring ground; Type 9XR10-2, 4PDT socket, spring ground; Type 9XR10-3, 6PDT socket, spring ground. **Contact your nearest Allied Electronics facility for larger quantity pricing.**

Stock No.	Mfr's Type	Description	EACH 1-9	10-24	25-49	50-Up
886-1430	9XR10-1	Socket, Spring Gnd.	.96	.64	.58	.51
886-1431	9XR10-2	Socket, Spring Gnd.	1.22	.80	.72	.64
886-1432	9XR10-3	Socket, Spring Gnd.	1.57	1.01	.91	.80

RELAY SOCKET ASSEMBLIES

PC track-mounted socket assemblies (up to 24) snap vertically in or out of 48" pre-punched vinyl track (below). Glass epoxy G-10 board, wave soldered and coated. Barrier type terminal blocks with screws are permanently marked. RS14, -15 for miniature 4PDT relays with 2 coil leads and gnd. have 2-56 wire clamp for wire sizes to #16. Others, 6-32 screws for wire to #12, RS8 for 2PDT; RS11, -12 for 3PDT. Av. shpg. wt. 4 oz.

Stock No.	Mfr's Type	Contacts	A	V	Size, Inches WxDxH	EACH
764R1008	RS8	Octal	10	250	2 1/16x2x1 3/32	3.35
764R1011	RS11	11	10	250	2 1/16x2 1/16x1 3/32	4.75
764-1012	RS12	11	10	250	3 3/16x2 1/16x1 1/16	5.43
764R1014	RS14	14	5	125	2 1/16x2x2 3/32	7.33
764-1015	RS15	15	5	125	2 5/16x2 1/16x2 3/32	7.68



PRE-PUNCHED VINYL TRACK

2" center-to-center mounting slot dimension. Mount with 2 or 3 holes per track. Cut to any length. 6 oz.

Stock No.	Type	WxL (Inches)	For Sockets	EACH
764-1101	TR1	2¾x48	RS15 only	4.00
764R1102	TR2	2¾x48	RS8-11-12-14-16	4.63

SOCKETS FOR KH SERIES

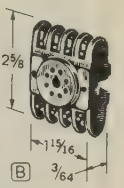
For KHP, KHS and KHU Series relays. 9KH1, 4PDT solder terminal socket; 9KH2, 4PDT printed circuit socket; 9KH5, 4PDT screw terminal socket. *hold-down spring. 1 oz.

Stock No.	Mfr's Type	Socket Term.	EACH 1-9	10-24	25-49	50-Up
886R1410	9KH1	Solder	1.05	.73	.69	.66
886-1411	9KH2	P.C.	1.05	.73	.69	.66
886-1404	9KH5	Screw	9.35	6.80	6.46	6.12
886-1412	KHP	*	.17	.13	.11	.10

SOCKETS FOR KCP, KRP, KRP-N, KAP

Amphenol Barrier Type Sockets. For KAP, KCP, KRP, and KRP-N relays. For SP and DP types, order octal 713-5003. For 3-pole, order 11-pin. 713-5017.

Amphenol Standard Sockets. For KAP, KCP, KRP, KRP-N. For SP and DP relays, order octal 713-2810. For 3-pole relays, order 11-pin 713-2815.



RELAY SOCKETS

A **TYPE 146-817.** 11-contact melamine socket for most 11-pin relays. Replaceable contacts on ¾" terms (screw-type) rated 10 A @ 600 V rms. Two .156" mnt. holes, 3⅞" ctrs. Four tie points. 1 lb.

713-5017. 1-24..Each 4.11 25-49 .....Each 3.85
50-99 .....Each 3.26 100-Up .....Each 2.89

BARRIER-TYPE SOCKETS

B Barrier-type octal relay sockets have max. EIA working voltage of 2000 DC. Bronze cloverleaf contacts—each rated 8 A. Inter-electrode cap., 2.6 pF 8 screw terminals. Top mnt., except *bottom mnt. †4 molded-in threaded insert for tie points. ¾x1 1/16x2⅝". Shpg. wt. 8 oz.

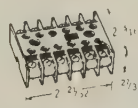
Stock No.	Mfr's Type	EACH 1-24	25-49	50-99	100-Up
713R5003	146-103	2.48	1.98	1.52	1.24
713R5004	146-104†	3.05	2.44	2.05	1.85
713-5011	146-293*	2.13	1.97	1.74	1.53
713-5012	146-204*†	3.05	2.45	2.06	1.84

11-CONTACT RELAY SOCKET

C **TYPE 2811.** Above-chassis mount. Diallyl phthalate base, socket. Beryllium copper contacts rated 600 volts rms at 10 amps. Size, 2x2x.85". Shpg. wt. 5 oz.

885R0605. 1-9...Each 5.85 10-24 .....Each 4.68
25-49 .....Each 2.93 50-Up .....Each 2.76

12-PIN PLUG-IN RELAY SOCKET



TYPE 27390. Twelve terminal socket accepts types 211, 219, 235, 236, 237, 255, 349, and RSX alarm relays. Overall dimensions, 2 3/32 x 2 3/16 x 2 7/32".

929R2030. Each...6.52 4-Up...5.00

14-PIN SOCKET FOR 4PDT AND 6-POLE

TYPE 33377. Accepts all frame 219 4PDT and 6-pole model relays. Overall dimensions, 3 3/32 x 2 3/16 x 2 7/32".

929-2050. Each...7.00 4-Up...5.60

RELAY ACCESSORIES AND SOCKETS

8-Pin "P" Case. Type 35D070. Clear plastic; octal base. For mounting rectifiers, capacitors. 4 screws. 2 x 1 13/32 x 1 13/32".

886R1460. Wt. 1 oz. **1-24.....Each 1.27**
25-49....Each .79 50-Up.....Each .71

11-Pin "P" Case. Type 35D072.

886-1462. 1-24 .....Each 1.80
25-49....Each .95 50-Up.....Each .86

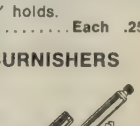
KCP-KRP Hold-Down Spring. Two 5/32" holds.

886-1416. Type 9KR15. Wt. 3 oz.....Each .25

POCKET-TYPE CONTACT BURNISHERS

6 blades in plastic pen. 4½x⅜" dia.

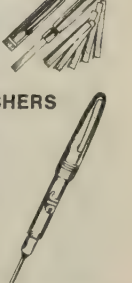
830R0357. PB-7 Pen, 6-0.007" Blades.....11.00
830-0356. PB-3 Pen, 6-0.0035" Blades.....Ea. 11.38
830-0212. B-7 Blades for PB-7 Pen Pkg. of 25 Blades.....Ea. 12.50
830-0211. B-3 Blades for PB-3 Pen Pkg. of 25 Blades.....Ea. 12.25



POCKET-TYPE BURNISHERS

P-4 & P-6 BURNISHERS. Leave no residue on contact. Replaceable blades. Insulated. Pocket clip. ⅜ x 5½". 5 oz.

P-4. With 12 RB4 (¼x1¼") blades.
830-0366..Ea. 11.38 5-Up..Ea. 9.10
P-6. With 12 RB6 (3/16x1¾") blades.
830-0370..Ea. 11.38 5-Up..Ea. 9.10
Replacement Blades. For above. 2 oz
830-0375. RB4. Ea. 12.50 5-Up Ea. 10.00
830-0377. RB6. Ea. 12.50 5-Up Ea. 10.00



PRECISION TOOLS FOR RELAYS AND OTHER COMPONENTS

K-600 20-PIECE ELECTRONIC TOOL SET

Contains: chain-nose, groove-grip and diagonal cutting pliers; stnd. and Phillips screwdrivers; magnifiers; soldering iron; straight and bent-nose tweezers; solder aid; alignment tool; 2 needle files; pin vise; solder core; 3/16" and ¼" nut drivers; 2 jewelers screwdrivers; and pen burnisher with 21 blades. Zippered leather case. 2 lbs.

830-0350. 1-4.....Each 60.12
5-Up .....Each 45.00

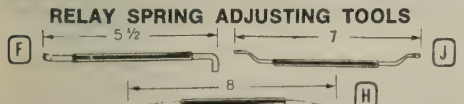
T-720N STRAIGHT THICKNESS GAUGE. Not illus. 26 blades, .005—.025". 4 oz.

KR-6 8-PIECE TOOL KIT

Compact tool kit for setting, adjusting, testing relays. Carbon steel, polished finish. Kit includes the following: spring adjuster; armature arm bender; armature stop bender; duckbill plier; contact burnisher; 0-50 gram spring tension gauge; swivel head screwdriver; fine point tweezer. With storage case.

830-0354..Ea. 44.26 5-Up..Ea. 37.63

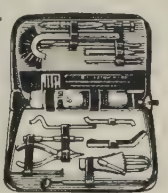
RELAY SPRING ADJUSTING TOOLS



Of plated and polished high carbon steel, heat treated and tempered. Insulated handles. .023" slot width, except (*) .030". Av. shpg. wt. 3 oz.

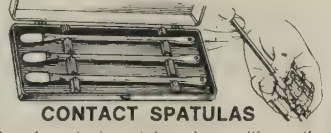
Stock No.	Mfr's Type	Fig.	Description	Lgth. (In.)	EACH 1-4	5-Up
830-0396	SA-6A*	F	Cross, lengthwise slots	5½	10.63	8.50
830-0412	SA-17	H	For all relay types	8	13.75	11.00
830-0392	SA-2	J	Gen. type, chisel edge	7	10.75	8.60

MASTER TOOL KIT K-55 15-PC.



For adjusting and maintaining relays, contactors, switches, controls. Complete 15-pc. kit includes: two spring adjustors (SA-7, SA-17); duckbill plier; inspection mirror; armature arm bender; penfile contact burnisher; tension measuring gauge; screwdriver; 4-in-one tool; backstop bender; angle thickness gauge; tweezers; selector switch contact cleaning brush; 12 replacement burnisher blades; "Kontact 60" spray. Case. Wt. 3½ lbs.

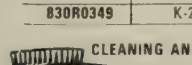
830-0344. 1-4 .....Each 72.15
5-Up .....Each 54.00



CONTACT SPATULAS

Diamond-faced contact spatulas clean with gentle pressure; do not disturb contact gap. **Type 200.** .019" diamond grain. **Type 300.** .017" diamond grain . . . 2 diamond faces. **Type 400.** .011" diamond grain. **Type K-234.** Set of one each in plastic case. 6" long. *Per set. Ship. wt. 2 oz.

Stock No.	Mfr's Type	For Relays	Price EACH
830-0240	D-200	Industrial	13.37
830-0244	D-300	Intermediate	13.37
830-0248	D-400	Sensitive	13.37
830R0349	K-234	Set of 3	*25.63



CLEANING AND ADJUSTING TOOLS 2 oz

Stock No.	Type	Fig.	Description (Inches)	EACH
830-0480	WB-65	C	Nickel-silver wire brush, 91 g.	7.63

G-150 SPRING TENSION GAUGE. 10 gram steps, both sides (0-150 grams). 5 oz.

830-0305. 1-4 Ea. 22.75 5-Up Ea. 18.20

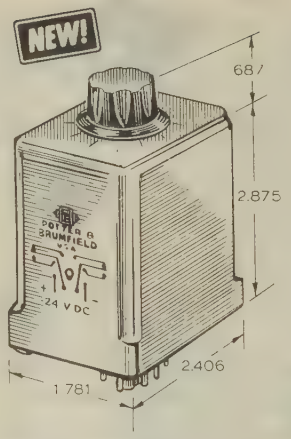
Time Delay and Thermal Relays

TIME DELAY FUNCTIONS

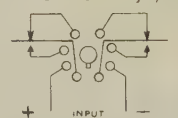
DELAY ON OPERATE—The delay period begins when input voltage is applied. The relay will remain de-energized until the end of the delay period, at which time it energizes and operates the output contacts. Reset is accomplished by removal of the input voltage.

INTERVAL ON—The relay operates immediately upon application of input voltage. At the end of the adjustable, predetermined interval the relay drops out, even though input voltage may still be applied. It will remain dropped out until reapplication of input voltage. Reset is accomplished by removal of input voltage.

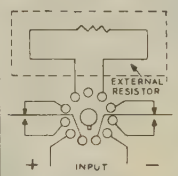
DELAY ON RELEASE—The relay operates immediately upon application of input voltage. When input voltage is removed, the relay remains energized until the end of the delay period.



WIRING DIAGRAMS (Disregard DC polarity for AC relays)



Dia. 1



Dia. 2

CG SERIES TIME DELAY RELAYS

CG Series relays are available in time delay on operate or interval on. They feature a C/MOS integrated circuit controlling an internal DPDT relay having contacts rated 10 amps @ 120VAC, or 5 amps @ 240VAC resistive. Repeatability, including first cycle of operation, is typically .01% for DC units and 0.1% for AC units. The delay time provided by the IC network is not normally affected by voltage transients encountered in industrial applications. The relay contacts will not transfer if timing cycle is momentarily interrupted. Weight is approximately 8 ozs.

All Are Knob Control Types

DELAY ON OPERATE

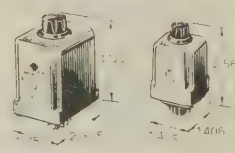
Stock No.	Mfr's Type	Time Delay	Input Volt.	Dia. No.	EACH 1-4	EACH 5-Up
886-0059	CGB38-70010M	1.0-10Min	120 VAC	1	73.00	58.40
886-0060	CGB38-70100M	10-100Min	120 VAC	1	73.00	58.40
886-0063	CGD38-30010M	1.0-10Min	24 VDC	1	69.25	55.40
886-0064	CGD38-30010M	10-100Min	24 VDC	1	69.25	55.40

INTERVAL ON

886-0061	CGB38-79010M	1.0-10Min	120 VAC	1	73.00	58.40
886-0062	CGB38-79100M	10-100Min	120 VAC	1	73.00	58.40
886-0065	CGD38-39010M	1.0-10Min	24 VDC	1	69.25	55.40
886-0066	CGD38-39100M	10-100Min	24 VDC	1	69.25	55.40

SERIES CH AND CD TIME-DELAY DEVICES AND RELAYS

Solid-state devices. Reset within milliseconds. Adjustable over entire time range. Plastic enclosures. Series CH: temp., –10°C to +55°C, acc., ±10%; reset, 100 msec; repeatability, ±2%. Series CD: temp., –40°C to +55° C; acc., ±5%; reset, 60 msec; repeatability, ±1%. CHB/CDB38 and CHB/CDD38 have internal DPDT 10-amp relay. Others are timer only; use with other relays; *KRP11AG or KRP14AG. CDB38-70012, CHB38-70011, and CHB38-70013 provide delay on release, others delay on operate. Wts.: CD21, 5 oz.; CD38, 9 oz.; CH38, 5 oz.



CH/CD38 CD21

DELAY ON OPERATE

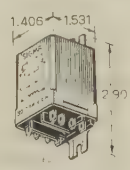
Stock No.	Mfr's Type	Input Volts	Delay Sec.	EACH 1-9	EACH 10-24	EACH 25-Up
886-0080	CHB38-30001	24 AC	1.0-10	26.63	21.76	20.61
886-0090	CHB38-70001	120 AC	1.0-10	26.71	21.76	20.61
886-0091	CHB38-70003	120 AC	1.0-180	26.71	21.76	20.61
886-0085	CHD38-30001	24 DC	1.0-10	27.25	20.71	19.62
886-0086	CHD38-30003	24 DC	1.0-180	27.25	20.71	19.62
886-0053	CDB38-70003	120 AC	0.1-10	59.27	48.26	45.72
886-0054	CDB38-70004	120 AC	0.6-60	63.50	48.26	45.72
886-0055	CDB38-70005	120 AC	1.8-180	63.50	48.26	45.72
886-0069	CDD38-30003	24 DC	0.1-10	60.25	45.79	43.38
886-0051	CDB21-70003*	120 AC	0.1-10	56.13	42.66	40.41

DELAY ON RELEASE

886-0082	CHB38-70011	120 AC	1.0-10	35.06	26.65	25.25
886-0083	CHB38-70013	120 AC	1.0-180	34.82	26.46	25.07
886-0057	CDB38-70012	120 AC	.6-60	75.88	57.67	54.63

CU SERIES ADJUSTABLE TIME DELAY RELAYS

CU-41



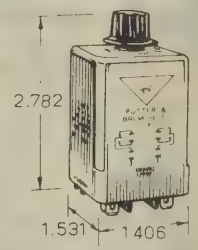
CU-42

Where fast reset time and excellent repeatability are required. Designed for delay-on-operate use, with fixed timing tolerance of ±5% and resistor adjustable tolerance of ±10%. Ideal for vending equipment, machine tool control or process controls. Each unit contains internally-mounted 10-amp DPDT relay. Type CU-41 uses KUP series socket. Type CU-42 enclosures have flanged cases for mounting directly to chassis. Units with adjustable time delay require external resistor for operation.* Resistances indicated in table below are for maximum delay time. Yellow Lexan case. Av. shpg. wt. 4¼ oz.

RESISTOR-ADJUSTABLE DELAY TYPES (LESS RESISTOR)

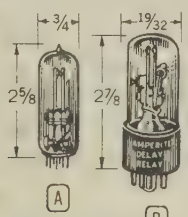
Stock No.	Mfr's Type	Delay (Sec.)	Volts	Res.* (Ohms)	EACH 1-9	EACH 10-24	EACH 25-Up
886-0148	CUF41-70010	1-10	120 AC	200k	21.57	16.39	15.53
886-0149	CUF41-70120	1-120	120 AC	2.4 meg	23.43	17.81	15.53
886-0157	CUH41-30010	1-10	24 DC	160k	21.57	16.39	16.88
886-0153	CUF42-70010	1-10	120 AC	200k	21.57	16.39	15.53
886-0154	CUF42-70120	1-120	120 AC	2.4 meg	23.43	17.81	16.88
886-0162	CUH42-30120	1-120	24 DC	2 meg	23.43	17.81	16.88

CUB51 TIME-DELAY RELAYS



Knob-adjustable delay-on-operate time delay relays. DPDT contacts 10 A at 28 VDC resis., or 120 V, 60 Hz AC. 80% power factor. Cal. dial. Tol.: adjust., ±3%. Reset: 150 msec. Recycle: 150 msec. Transient protection of twice rated input voltage for up to 8 msec. Polarity protected. Operate room temp. Timing intervals adjust, over timing ranges *1 to 10 secs. or †1 to 120 secs. 1.53x1.406x 2.78″ (including knob). 120 VAC. 3½ oz.

Stock No.	Type CUB51-	EACH 1-9	EACH 10-24	EACH 25-Up
886-0131	70010*	24.75	18.81	17.82
886-0132	70120†	25.68	19.52	18.50



THERMAL RELAYS

- **Heater Can Operate Continuously**
- **Convenient 9-pin or Octal Mounting**
- **Contacts 3 Amps at 115 VAC; 1 Amp at 220 VAC**

Energized heater close contacts for NO Types or open for C Types after rated delay period. Relay heater operates on AC or DC. Heater draws two watts; may operate continuously. SPST contact is 3 amps at 115 VAC; 1 amp at 220 VAC. Voltage breakdown: 800 volts; heater-to-contact, 800 volts, except *250 volt contact and 500 volts heater-to-contact for units with delays of 10 seconds or less. Temperature range: –55°C to +70°C. Tolerance, ±30%. Octal base size, 1⁹⁄₁₆-in. diameter, 2⅞-in. high, less prongs. Nine-pin miniature size for easy fit, anywhere. Made to the most rigid specifications and exacting tolerances in the industry. Measures ¾ inches diameter, by 2⅝ inches high (measurements do not include prongs). **When ordering, Please Specify Type Number As Well As Stock Number.** Average shpg. wt., 4 oz., octal base; 2 oz., 9-pin miniature.

Ⓐ MINIATURE 9-PIN TUBE SHELL

Delay Sec.	Type NO. Normally Open: Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V
2*			711-1251	26N02T	711-1451	115N02T
3*			711-1253	26N03T	711-1453	115N03T
5*					711-1455	115N05T
10*					711-1459	115N010T
20					711-1463	115N020T
30	711-1065	6N010T			711-1465	115N020T
45	711-1067	6N045T			711-1467	115N045T
60					711-1469	115N060T
120					711-1475	115N0120T

Delay Sec.	Type C. Normally Closed: Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V
2*	711-1001	6C2T			711-1401	115C2T
3*					711-1403	115C3T
60					711-1419	115C60T
120					711-1425	115C120T

PRICE EACH ..... 1-9 ..... 4.90 10-49 ..... 3.95 50-99 ..... 2.95 100-Up 2.60

Ⓑ OCTAL BASE TUBE SHELL

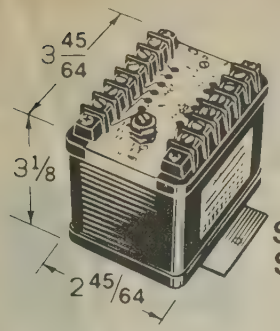
Delay Sec.	Type NO. Normally Open: Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V
2*			711-1250	26N02	711R1450	115N02
3*			711-1252	26N03	711-1452	115N03
5*			711-1254	26N05	711R1454	115N05
10*	711-1058	6N010			711R1458	115N010
15					711R1460	115N015
20			711-1262	26N020	711-1462	115N020
30	711-1064	6N030			711R1464	115N030
45					711-1466	115N045
60	711-1068	2N060			711R1468	115N060
120					711-1474	115N012
180	711-1078	6N0180	711-1278	26N0180	711R1478	115N180

Delay Sec.	Type C. Normally Closed: Stock No.	6.3 V	Stock No.	26 V	Stock No.	115 V
2*					711R1400	115C2
3*					711-1402	115C3
5*			711-1204	26C5	711R1404	115C5
10*					711-1408	115C10
15					711-1410	115C15
20					711-1412	115C20
30					711-1414	115C30
45					711-1416	115C45
60					711-1418	115C60
120					711-1424	115C120
180					711-1428	115C180

PRICE EACH ..... 1-9 ..... 4.90 10-49 ..... 3.95 50-99 ..... 2.95 100-Up 2.60

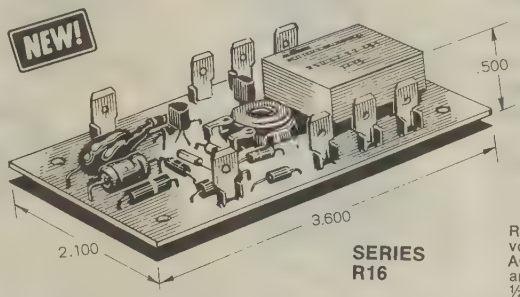
Prices Subject to Change—We Always Ship at Lowest Price in Effect

Relays, Timers, Voltage Sensors & Light Control Devices

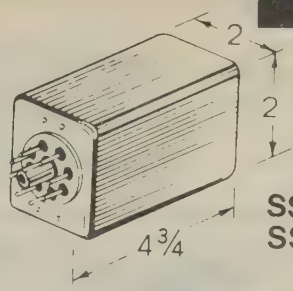


SS-15
SS-16

- Solid State Time Delay Relays
- Wide Selection of Ranges for On or Off-Delay
- Unusually Wide Time Ranges: 0.05 to 500 Seconds



SERIES
R16



SS-6
SS-8

SURFACE MOUNT TIMERS

Designed for all variable on-delay timing requirements. Silicon semiconductors and tantalum capacitor for high accuracy and stability. Time ranges: 0.05 to 500 seconds. ±1% repeatability. Dial accuracy, 5% of nominal setting. Recycle time, 50 msec. 0° to 130°F ambient. Maximum power consumption, 4½ watts. Protected against voltage transients and polarity changes. See charts below for action. 115 VAC except (†) 24 VDC. Av. wt. 14 oz.

Series SS15 On Delay. **Series SS16** Off Delay. Housed in steel surface mount case. Terminals on top for easy wiring. Output switching: DPDT, 10 amps. 115 VAC except (†) 24 VDC. Locking type adjustment bushing with slot for remote time adjustment pot. 3⅝x3⅞x3⅝".

Stock No.	Mfr's Type SS15-	Stock No.	Mfr's Type SS16-	Range (Secs.)	EACH 1-24	EACH 25-Up
818-1255	222-B	.....	.....	.05-.5	56.75	44.52
.....	.....	818-1271	822-B	.05-.5	62.50	49.05
.....	.....	818-1273	822-C	.5-5	62.50	49.05
818-1259	222-D	.....	.....	5-50	56.75	44.52
818-1261	222-E	.....	.....	50-500	64.25	50.42
818-1269	223-E†	.....	.....	50-500	64.25	50.42

TIME DELAY RELAYS

R16 time delay on operate is available in the timing range of 2.0 to 30 seconds. A potentiometer is used to set the timing values. All components are mounted on a .062" G10 glass/epoxy printed circuit board with .250" quick connect termination. Contacts have a life expectancy in excess of 10 million operations, mechanical, and at least 100,000 operations at full load @ 28 VDC. Board mounts with #6 screws. Repeatability ±3%. Contact arrangement DPDT.

DELAY ON OPERATE

Stock No.	Mfr's Type (R16-)	Input Voltage	Amp. Rating	EACH 1-9	EACH 10-Up
886-1062	30A-24A-Y2	24 VAC	2	12.60	9.72
886-1064	30A-120A-Y2	120 VAC	2	12.60	9.72

LOW-COST TIME DELAY RELAYS

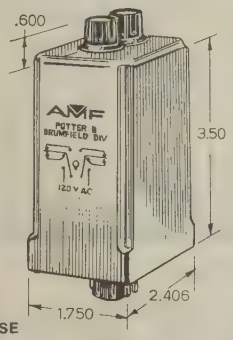
- **Choice of Types for On-Delay or Off-Delay**
- **Compact Packages to Fit Standard Octal Socket**

Repeatability accuracy is ±5%. Fully protected against voltage transients and polarity changes. Input: 120 volts AC, except †24 volts AC. Output switching: SPDT, 3 amperes. Series SS-6, on-delay; series SS-8, off-delay. ½ lb. Adjusting slot.

Stock No.	Type SS-	Range (Secs.)	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
818R1115	6262-II	1-15	12.10	10.20	9.55	8.90
818-1121	6268-II†	1-15	12.10	10.20	9.55	8.90
818-1117	6262-JJ	1-60	13.40	10.95	10.30	9.60
818-1123	6268-JJ†	1-60	13.40	10.95	10.30	9.60
818R1135	8562-II	1-15	15.10	12.75	11.95	11.15
818-1141	8568-II†	1-15	15.10	12.75	11.95	11.15
818-1137	8562-JJ	1-60	16.40	13.80	12.95	12.15
818-1143	8568-JJ†	1-60	16.40	13.80	12.95	12.15

CR SERIES RECYCLE TIMER

CR Series recycle timer has two independent control knobs for adjusting ON and OFF delays from 1.8 to 180 seconds. The recycling sequence is initiated by applying power to the terminals. When the first pre-set delay is complete, the contacts transfer from normally OFF to energized ON, at which time the ON delay begins. If power is removed during any part of the operate cycle, the CR will revert to its OFF state (Contacts open). Repeatability ±2%.

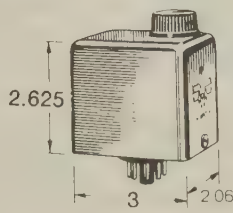


NEW!

Alec Electron

DELAY ON OPERATE AND ON RELEASE

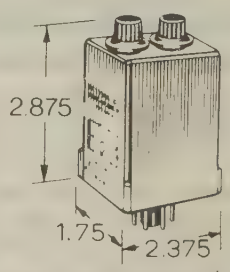
Stock No.	Mfr's Type	Time Delay (Sec.)	Method of Control	Input Voltage	EACH 1-3	EACH 4-Up
886-0095	CRB48-30180	1.8-180	Knob	24 VAC	62.06	49.65
886-0097	CRB48-70180	1.8-180	Knob	120 VAC	62.06	49.65
886-0099	CRD48-30180	1.8-180	Knob	24 VDC	54.25	43.40



DPDT 5 AMP TIME DELAY RELAY

Operates from 115 VAC +10% 50-60 Hz. Recycle time, 100 msec.; repeatability, 5% of nominal setting; accuracy, 10% of nominal setting. 10-turn pot adjusts from 0.5 to 30 seconds. −10°F to +100°F. Plug-in octal mounting. With setting chart. 3x2.062x2.625". 8 oz.

802-0640. Type TDO-62C30-115A.
1-9.....Each **22.71** **10-24**.....Each **19.43**
25-49.....Each **17.49** **50-Up**.....Each **16.52**



CS SERIES SOLID-STATE VOLTAGE SENSORS

Series 30010, 70010 offer adj. pick-up, drop-out voltages. Drain: 3 mA(max.); after sensing. 30 mA. DC polarity protection. 2 Form C(DPDT) contacts: 3 A @ 28 VDC resis.; 120 VAC resis. Ambient, −40° to +55°C. 2⅞x1¾x2⅜". AC types— 50/60 Hz. Octal plug, cover. 10 oz.

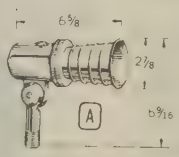
Stock No.	Type CS	Pick-Up Range	Drop-Out Range	V	EACH 1-9	EACH 10-24	EACH 25-Up
886-0118	J38-70010	92-140 V	90-138 V	AC	47.32	35.96	34.07
886-0119	L38-30010	20-30 V	18-28 V	DC	37.82	28.74	27.23

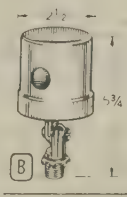
LIGHT CONTROL DEVICES

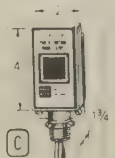
The photoelectric cell measures the amount of natural light present. When natural light falls below prescribed level, cell turns on lights. When required amount of natural light is present again, cell turns off light. There's nothing to set, nothing to adjust.

(B) TYPE K1111. Photo control with adjustable stem. Adjustable stem permits mounting at almost any angle up to 80°. All models equipped with three, eight-inch color coded leads. Activation: 1-3 FC On, 3-7 FC Off. Size: 5¾ x 2½". Shpg. wt. ½ lb.

(A) TYPE K1611. Photo Control-Par lamp holder. Completely automatic outdoor spot for decorative or flood lighting. External switch leg provides automatic control of a light cluster with a maximum total of 1000 watts. Activation: 1½-2 FC On, 5-6 FC Off. Size: 6⁹⁄₁₆ x 2⅞ x 6⅝". Shpg. wt. 1¼ lbs.







(C) TYPE K1811. Relay type controls are enclosed in a small, epoxy coated die cast aluminum housing. Activation: 2-2½ footcandles On, 4½-5 footcandles Off. Size: 4 x 1¾ x 2". Shpg. wt. ¾ lbs.

(C) TYPES K2011 and K2311. Compact Heavy Duty Controls. Hermetically sealed in a die cast epoxy coated aluminum housing. **Type K2311** is T rated to carry incandescent loads up to 3000 watts. Activation: 2-2½ footcandles On, 4½-5 footcandles Off. Size: 4 x 1¾ x 2". Shpg. wt. ¾ lb.

Stock No.	Mfr's Type	Fig.	Volts AC	Watts	Hz	EACH
818-1005	K1111	B	105-130	650	60-50	19.95
818-1040	K1611	A	105-130	1000	60-50	16.95
818-1042	K1811	C	120	1800	60	15.45

Stock No.	Mfr's Type	Fig.	Volts AC	Watts	Hz	EACH
818-1044	K2011	C	120	1800	60-50	12.45
818-1048	K2311	C	105-130	3000	60-50	20.95
.....	.....	.....	.....	.....	.....	.....

Timers Are Energy Saving Devices!

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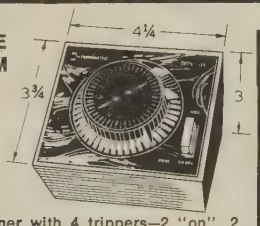
ENERGY SAVING SECURITY TIMERS

MULTIPLE PROGRAM TIMER

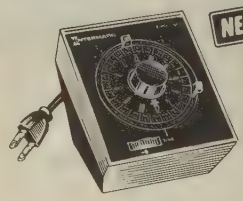


A 24-hr. timer with 4 trippers—2 "on", 2 "off". Max. on time: 23½ hrs. Min. on time: ½ hr. 125 VAC, 1875 watts, 15 amps.

Stock No.	Type No.	Description	EACH 1-11	EACH 12-Up
818-4011	EB-11	Timer	13.95	9.99
818-4021	156EB1945A	Extra Trippers, 4 per set	1.85	1.50

NEW!

24-HOUR TIMER

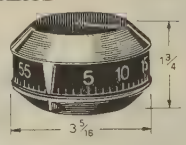


NEW!

Repeats cycle every 24 hours. Max. "On" time: 22¾ hrs. Min. "On" time: ½ hr. With 5-ft. cord. ⅓ H.P. motor load, 125 VAC, 1875 Watts, 15 amps (12 amps Tungsten). U.L. list.

Stock No.	Type No.	Description	EACH 1-11	EACH 12-Up
818-1030	E911-16	Timer	12.95	11.05

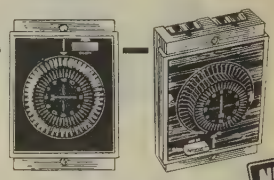
SPRING-WOUND TIMERS



Loud Ring and Seven Second Long Ring Models accurately time any activity from 1 to 60 min. Tip and spill proof countertop base of unbreakable high-impact plastic. Large, easy-to-read numerals and minute markings. White w/black trim. Guaranteed for 5 yrs. Size: 3⅜" dia. x 1¾" high.

Stock No.	Type No.	Description	EACH 1-6	EACH 7-Up
818-0100	R10W	Loud Ring	6.95	4.64
818-0200	R20W	Long Ring	7.95	5.30

IN-WALL TIMERS

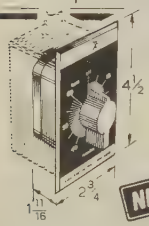


NEW!

Install in any 2x3x2" outlet box. Has 2 "On", 2 "Off" trippers. Can add 10 "On" and 10 "Off" trippers. May be controlled manually. Max. "On" time: 23½ hrs. Min. "On" time: ½ hr. 120 VAC, 12A, 15A max. Extra trippers (818-4021) at left.

Stock No.	Type No.	Description	EACH 1-11	EACH 12-Up
818-1020	E1020	No Outlets; for SP Switch	16.45	9.87
818-1022	E1022	2 Outlets; 1 contin., 1 timed.	18.45	11.07

SPRING-WOUND TIME SWITCH



- For 2-Wire Installation
- Uses No Energy
- For Heaters, Signs, Fans

NEW!

Models with "Hold"* position provides continuous service without utilizing timer. 1 HP @ 125 VAC, 20 amps; 250 VAC, 10 amps.

Stock No.	Mfr's Type	Time Cycle	EACH 1-11	EACH 12-Up
818-0005	F5MH*	5 Min.	9.95	6.64
818-0060	F60MH*	60 Min.	9.95	6.64
818-0012	F12HH*	12 Hrs.	10.45	6.97
818-0015	F15M	15 Min.	9.95	6.64
818-0030	F30M	30 Min.	9.95	6.64

NEW!

"SUPERCOP" VARIABLE TIMER

Compact 24-hr. automatic plug-in timer with variable timing. Easy to set. 1875 Watts, 15 Amp. Max. "On" 20½ hrs.; Min. "On" 2½ hrs. Manual on/off knob; color-coded time selector tabs and time dial for high visibility. UL listed.

Stock No.	Mfr's Type	Description	EACH 1-6	EACH 7-Up
818-5000	D711	24-Hr. Timer	10.95	8.95

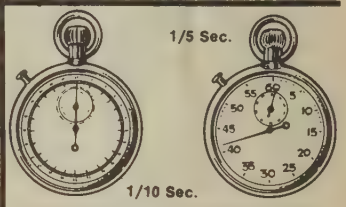
NAME 'N NUMBER LIGHT

NEW!

Design your own message using punching tool and graph provided. Dark green metallic housing of plastic, 12¾w. x 4¼h. x 4½"d; message area, 12 x 4". With ground stake and post/wall mounting bracket. For standard 120 VAC.

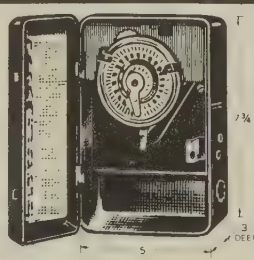
Stock No.	Mfr's Type	Description	EACH 1-6	EACH 7-Up
818-0040	HN121	Message Lgt.	17.95	11.97

ONE-JEWEL STOPWATCHES



Type 63-611: 1/5 Second. Outer dial registers up to 60 sec. Inner dial up to 30 min. Start, Stop, Continue controls on crown. Side-button return to zero. 1 lb.
622-R0001 ..... Each 19.95

Type 63-635: 1/10 Second. Outer dial registers up to 30 sec. Small hand, up to 15 min. Start, Stop, Continue controls on crown. Side-button return to zero. 1 lb.
622R0002 ..... Each 19.95



24-HOUR TIME SWITCHES

- 1 to 12 On-Off Operations Every Day
- Permits Timing From 1 to 23 Hours

Type T101. For dependable automatic control of lighting, signs, process control, heating and cooling, etc. SPST switch rated 40 amp inductive, 4375 watts tungsten; 2 hp and 690 VA pilot duty. Large, easy-to-read dial. "Alloy-T" contacts handle surges up to 8 times the rating. Heavy gauge steel case with hinged cover, spring hasp with hole for padlock. Gray hammertone finish. U.L. Recognized; C.S.A. Listed. 125 VAC. Wt. 3 lbs.
818R1417. 1-9..Ea. 21.35 10-Up..Ea. 14.24
Type T103. DPST timer; for 125 VAC.
818-1420. 1-9..Ea. 23.65 10-Up..Ea. 15.77
Type T171 "Skipper." Same as T101 but permits omitting selected days of weekly cycle. 125 V.
818R1450. 1-9..Ea. 29.00 10-Up..Ea. 19.34
Type T173. DPST type; for 125 VAC.
818-1452. 1-9..Ea. 31.20 10-Up..Ea. 20.81
Type T175. SPDT type; for 125 VAC.
818-1454. 1-9..Ea. 31.20 10-Up..Ea. 20.81

TIMER CROSS REFERENCE CHART

Intermatic	Paragon	Tork	Intermatic	Paragon	Tork	Intermatic	Paragon	Tork
T101	4001-0	1191	T175	4005-OS	7120	V46401	7007-0	W300
T103	4003-0	1962	T1975	1015-ORS	8007	V46107	7008-0	W220
T171	.....	7100	T573R	.....	7200H	.....	.....	.....
T173	4003-OS	7200	T185	8025-0	4100	.....	.....	.....

PROGRAM TIMER AND TIME SWITCHES

Type T1975 "Skipper" Program Timer. "Supervisor" with 96 trippers for 48 "on" and 48 "off" operations every 24 hours. Minimum interval, 15 minutes. For full-time control of heating, air conditioning, oil well pumps, poultry feeders, etc. "Skipper" feature omits selected days. Has 7-day Skipper wheel with handy push-pull tabs. SPDT switch rated 20 amps at 125 V, 60 Hz. U.L. Recog. Wt. 3¾ lbs.
818R1550..Ea. 41.80 10-Up..Ea. 27.88

Type T573-R Heavy-Duty Time Switch. For indoor-outdoor mounting. 24-hour dial. Skip feature omits selected days of the weekly cycle. DPST contacts rated 55 amps inductive, 6875 watts per pole; 2 hp motor load. Rain-tight case. Size, 9⅜ x 6½ x 3⅝". Rated for 125 V, 60 Hz AC. Wt. 4 lbs.
818-1520..Ea. 47.65 10-Up..Ea. 31.78

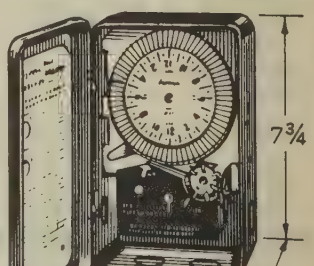
Type T185 Deluxe Time Switch. Up to 12 independently controlled "on-off" trippers. Adjusts from 10-60 minutes. Minimum interval, 2 hours. Can be used to handle a wide range of cycle operations. Rated 40 amps (4375 W.) tungsten at 125 VAC. With 3 trippers (1 for each cycle); up to 12 can be used. Rated for incandescent loads with surge over 8 times normal. 7¾ x 5 x 3". Wt. 3 lbs.
818-1465..Ea. 38.70 10-Up..Ea. 25.81

Type 156T1948A On-Cutoff Tripper. For "Skipper" types only. 3 oz.
818-1595 ..... Each 1.25

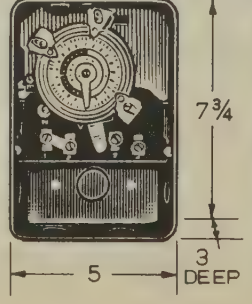
Type 156T1952A Skipping Screws. For "Skipper" types only. 8 oz.
818-1585. Pkg. of 2..... **Per Set .50**

Extra 156T1949A Tripper. (T185 only). Cam can be set for duration of "on-off" cycle.
818-1466. Wt. 4 oz..... **Each 3.50**

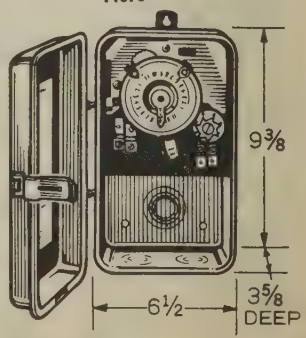
Type 156T1978A "On & Off" Trippers. For above switches (except T185).
818-1590. Wt 2 oz..... **Per Set .63**



T1975



T185

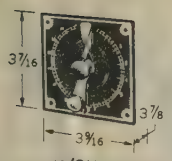


T573-R

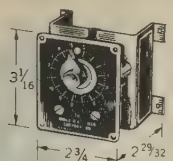
See Allied's Timing Circuit Handbook on Page 151

Time-Delay and Interval Timers

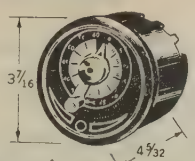
HIGH-ACCURACY TIME-DELAY CONTROLS



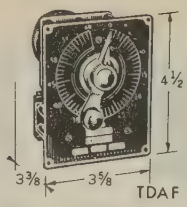
H/CH



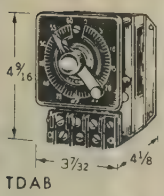
SF/CSF



TD/CTD



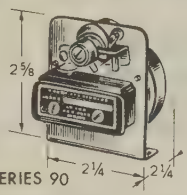
TDAF



TDAB

TIME-DELAY TIMERS

Automatic reset units. For use where fixed or adjustable delay is needed between closing one circuit and opening or closing another. SPDT switch rated 10 amps at 115 VAC, with non-inductive load. All types have external clutch. H for front-panel mounting; SF for back-panel mtg.; all have 4-screw mtg. holes. Overall size: H, 3 7/16 x 3 9/16 x 3 7/8"; SF, 2 3/4 x 3 1/16 x 2 29/32". 110-120 V, 60 Hz AC. U.L. Recognized. Shpg. wt. 1½ lbs.



SERIES 90

Stock No.	Mfr's Type	Max. Time Cycle	Stock No.	Mfr's Type	Max. Time Cycle	EACH 1-9	10-24	25-49	50-Up
815-0075	H-6S	6 sec.	815-0070	CH-1M	1 min.	30.00	25.55	22.50	20.90
815-0076	H-15S	15 sec.	815-0072	CH-3M	3 min.	30.00	25.55	22.50	20.90
815-0109	SF-6S	6 sec.	815-0103	CSF-1M	1 min.	28.00	23.85	21.00	19.50
815-0110	SF-15S	15 sec.	815-0105	CSF-3M	3 min.	28.00	23.85	21.00	19.50
815-0111	SF-30S	30 sec.	815R0107	CSF-5M	5 min.	28.00	23.85	21.00	19.50

SERIES TD AND CTD TIME-DELAY TIMERS

10 amp synchronous-motor-driven. Clutch motor in TD series. External clutch in CTD. TD repeat accuracy ±1% of full scale. Reset approx. 5% of dial setting. CTD repeat accuracy 1½% of full scale. Reset ½ sec. at max. setting. 60 dial divisions. For front mounting in 3" dia. hole. Bakelite case terminals at rear. SPDT contacts. Flange dia., 3 3/16". Depth behind panel: 4 5/32". For 110-120 V, 60 Hz AC. U.L. Recognized. Shpg. wt., 2 lbs.

Stock No.	Mfr's Type	Max. Time Cycle	Stock No.	Mfr's Type	Max. Time Cycle	EACH 1-9	10-24	25-49	50-Up
815-0125	TD-15S	15 sec.	815-0120	CTD-3M	3 min.	30.50	28.97	27.45	22.87
815-0126	TD-30S	30 sec.	815-0122	CTD-5M	5 min.	30.50	28.97	27.45	22.87
815-0118	CTD-1M	1 min.	.....	.....	.....	30.50	28.97	27.45	22.87

SERIES TDAB AND TDAF TIME-DELAY TIMERS

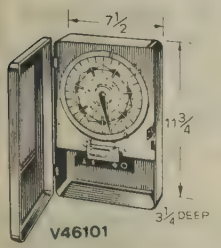
Series TDAB (back-mounted) and series TDAF (panel-mounted) timers for circuit controls where adjustable or fixed time-delay is required between the closing or opening of one circuit and the closing or opening of another circuit. For applications requiring high repetitive accuracy, fast reset, and heavy usage. Automatic reset of timing/switching movement in less than 0.2 second. Ideal for plastic molding equipment, packaging machinery, graphic arts equipment and other uses. Snap-action switches (SPDT) rated 10 amps. Sizes: TDAB, 4 9/16 x 3 17/32 x 4 1/8"; TDAF, 4½ x 3 5/8 x 3 3/8". For 110-120 volts, 60 Hz AC. Shpg. wt. 4 lbs.

Max. Time Cycle	Dial Div.	PANEL MOUNT Stock No.	PANEL MOUNT Type TDAF-	Max. Time Cycle	Dial Div.	BACK MOUNT Stock No.	BACK MOUNT Type TDAB-	EACH 1-9	10-24	25-49	50-Up
60 sec.	1 sec.	815-0520	60S	30 min	15 sec.	815-0517	30M	46.00	39.20	36.70	34.50

SERIES 90 TIME-DELAY TIMERS

Rugged, compact timer for use in applications where the time-delay cycle is infrequently changed, or permanently fixed. Excellent for use in photocopy equipment, induction heating units, transmitters, etc. Changes in time delay cycle are made by loosening set screw and offsetting one cam arm in relation to the other. Totally enclosed, snap-action SPDT switch contacts are rated at 10 amps at 115-230 volts AC. Overall size: (HWD): 2 5/8 x 2 1/4 x 2 1/4". For 115 V, 60 Hz AC. U.L. Recognized. Shpg. wt. 1 lb.

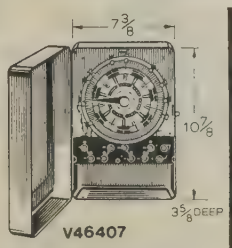
Stock No.	Mfr's Type	Settings Min.	Settings Max.	EACH 1-9	10-24	25-49	50-Up
815-0601	90-6S	½ sec.	6 sec.	18.50	15.75	14.75	13.85
815-0602	90-15S	1½ sec.	15 sec.	18.50	15.75	14.75	13.85
815-0603	90-30S	3 sec.	30 sec.	18.50	15.75	14.75	13.85
815-0604	90-60S	6 sec.	1 min.	18.50	15.75	14.75	13.85



V46101

NEW!

7-DAY DIAL TIMER

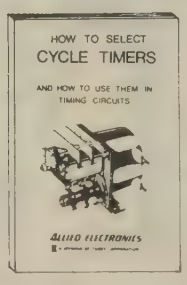


V46407

Seven day switch provides a different program every day of the week. For heating, air conditioning, ventilating systems, lights, pumps, motors, and other single to three-phase loads. Seven sets of trippers, 6-hour minimum between "OFF" trippers allows up to 4 "ON-OFF" operations per day. Minimum ON time, one hour; minimum OFF time, two hours. **Type V46101:** 4PST switch, rated 40 max. load amps per pole tungsten, 1 HP at 120VAC; 690 VA pilot duty. Case 10⅞ x 7⅜ x 3⅝", drawn steel, gray finish. Shipping weight, 6½ lbs.
818-1570. Type V46401. **1-9 ..... Each 47.35 10-Up .... Each 33.62**

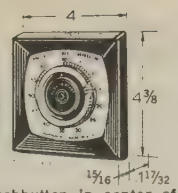
Type V46407: DPDT switch, 125 V 60 Hz, 40 amps per pole; 690 VA pilot duty. Case 11¾ x 7½ x 3¼", drawn steel, gray hammertone finish. Shipping weight 8 lbs.
818-1572. Type V46107. **1-9..... Each 47.35 10-Up .... Each 33.62**

ALLIED'S TIMING CIRCUITS HANDBOOK



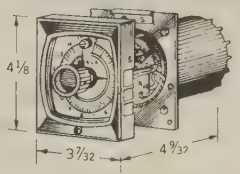
Valuable thirty-page book shows how to use repeat cycle timers with components to control pumps, compressors, lights, heaters and special purpose machines. Allied stock numbers included.
664-9999 ..... Each 3.95

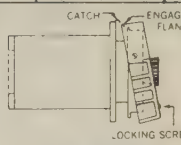
TYPE MPB INTERVAL TIMER



Depressing pushbutton in center of selector ring engages synchronous motor and closes SPDT snap action isolated load switch. At end of cycle, timer automatically resets to zero and opens load switch. Contacts rated 15 amps non-inductive at 115 volts, 60 Hz AC. Double load operation possible. Specify timing range desired. Av. Shpg. wt: 3 lbs.

Stock No.	Type MPB	Time Setting Max.	Time Setting Min.	EACH 1-9	10-24	25-Up
815-0329	60S	60 sec.	1 sec.	17.50	14.90	13.95
815-0322	5M	5 min.	5 sec.	19.50	16.60	15.55
815-0324	15M	15 min.	15 sec.	19.50	16.60	15.55
815-0328	60M	60 min.	60 sec.	19.50	16.60	15.55
815-0320	3H	3 hr.	3 min.	19.50	16.60	15.55





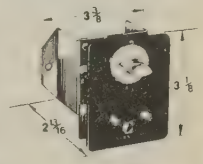
GP2 PLUG-IN INTERVAL TIMER

Automatic reset, synchronous motor-driven timing control. Provides two sets of delayed contacts and two sets of instantaneous contacts. Use where a controlled period of time is actuated by an external signal from a limit switch, sensor, thermal device, or pushbutton. Rated 10 amps at 125/250VAC, non-inductive, 125VA for instantaneous; 10 amps at 125 VAC, 5 amps at 250 VAC, non-inductive, for delayed contacts. Interchangeable with most other plug-in timers. **Repeat accuracy:** ±.5% of full scale value. **Reset time:** less than ½ sec. for full scale. **Operating voltages:** 102 to 132V and 204 to 264V, 50/60 Hz. **Temp. range:** 32° to 104°F. **Power consumption:** 16VA max. UL component recognized and CSA approved. **Size:** 4 1/8 x 3 27/32 x 4 9/32". 2½ lbs. with included case.

SERIES SSP SOLID STATE INTERVAL/DELAY PLUG-IN TIMER. Use for short time cycles operated at fast repetitive rate. Two sets each instantaneous and delay contacts. Built-in neon pilot lamp. **Repeat accuracy:** ±1%. **Reset time:** 25 msec. **Operating voltage:** 120(102 to 132) VAC 50/60 Hz. **Power consumption:** 3vA. **Temp. range:** 32° to 158°F. 12-#8-32 ¼ binding head screws. Instantaneous SPDT and SPST-NO. Delay SPDT and SPST-NC. 10 amp resistive. UL Component recognized and CSA approved. 2 lbs. with included case.

Stock No.	Mfr's Type	Time Setting Max.	Time Setting Min.	EACH 1-9	10-49	50-Up
815-0161	GP2-60S	60 sec.	2 sec.	55.00	46.86	41.25
815-0164	GP2-60M	60 min.	2 min.	55.00	46.86	41.25
815-0166	SSP-10S	10 sec	.5 sec.	75.00	63.90	59.85
815-0167	SSP-60S	60 sec.	3 sec.	75.00	63.90	59.85

TYPE DA 20-AMP TIME DELAY TIMERS



SPDT 20-amp switch, 125 or 250 VAC resistive. Internal clutch engages and disengages when motor is energized and de-energized. Series DA1103 has knob adjustment. Series DA2100 has locknut adjustment. Size, 3⅜ x 1 1/16 x 3⅛". U.L. Recognized. Shpg. wt. 1½ lbs.

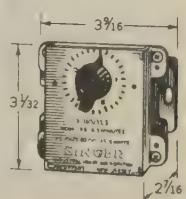
120 VOLTS AC

Stock No.	Type DA-	Time Range	EACH 1-9	10-24	25-49	50-Up
800-0050	11(2)031	0-14 sec.	25.90	22.00	19.91	18.75
800-0052	11(2)032	0-57 sec.	25.90	22.00	19.91	18.75
800-0054	11(2)033	0-4.5 min.	25.90	22.00	19.91	18.75
800-0068	21004	0-9.5 min.	25.90	22.00	19.91	18.75

SERIES RB AUTOMATIC RESET DELAY TIMER

- **Precision-Made**
- **Highly Dependable**
- **Long Life**

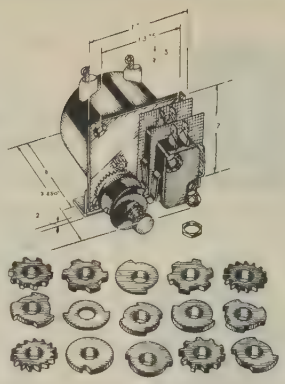
Used when delay is required between closing of one circuit and subsequent operation of a circuit controlled through load switch of timer. Time delay is initiated with sustained application of power to synchronous motor of timer. Load switch remains actuated until power is removed. When opened, timer resets to period set on dial. SPDT 15 amp switch. Repeat accuracy: ±1%. 120 VAC, 60 Hz. Shpg. wt. 1 lb.



Stock No.	Type RB-	Range Min./Max.	EACH 1-9	10-99	100-499	500-Up
815-0456	5.6S	0.2 sec/5.5 sec.	20.00	17.04	15.00	13.90
815-0459	56S	2.0 sec./54 sec.	20.00	17.04	15.00	13.90
815-0460	84S	3.0 sec./82 sec.	20.00	17.04	15.00	13.90
815-0462	4.5M	10.0 sec./264 sec.	20.00	17.04	15.00	13.90

Cycle Timer Kits and Cycle Timers

TYPE AK65 SINGLE-CYCLE TIMER KIT

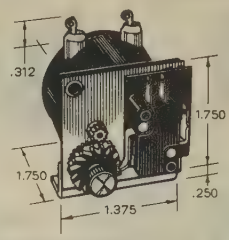


Two-switch timer kit with 16 interchangeable cams is the equivalent of several conventional single-cycle timers. Dependable two-switch timer, rugged DPDT relay and terminal block mounted to heavy aluminum frame. Kit includes wire, terminals and capacitor. Wire as required to start cycle from either momentary or maintained closure. Complete instructions and application tips included. Use for alternating duplex pumps, in motor overload and reversing circuits, for timing heaters, air clamps and cylinders, for controlling sirens and alarm horns. Pre-cut cams fit only this AK65 kit, can be installed to yield cycle times of 4, 6, 10, 20, 30 or 60 seconds. Blank cams can be machined to yield other cycle times as well as to control second switch for special program within duration of the single cycle. Camshaft rotates at 1 RPM. Motor operates from 105/130 V, 60 Hz AC. Relay rated 5 A at 125 VAC.

Stock No.	Mfr's Type	Two Switches Rated	EACH	
			1-9	10-Up
664-0300	AK65-001	5 amps at 125/250 VAC, ¼ hp	39.25	34.85

MODEL 60 REPEAT CYCLE TIMERS

Compact single-cam timers with one switch for SPDT action. Ideal for life testing relays, solenoids, low wattage electrical devices of all kinds. Instrument quality hysteresis motor has fine pitch gearing, lifetime oil reservoir, extremely low noise level. Cam is adjustable without tools to deliver pulse from 2 to 58 seconds; rotates at 1 RPM. Motor operates from 105/130 volts, 60 Hz AC.



Alec Electron

SINGLE CAM 1-RPM TIMER

Stock No.	Mfr's Type	No. of Switches	Switch Rated	EACH			
				1-9	10-24	25-99	100-Up
664-0001	60-044	1	10 A at 125/250 VAC, ½ hp	11.95	10.45	9.20	8.10

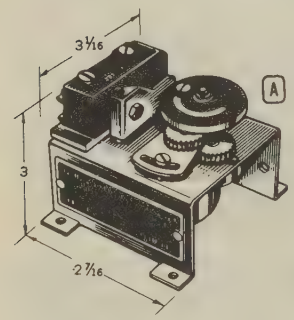
REPEAT CYCLE TIMER KITS

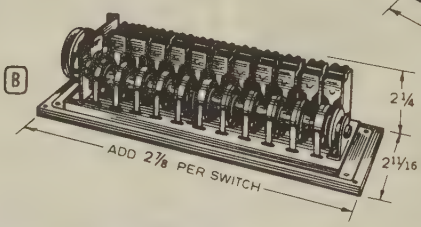
Kit contains a single-switch timer (SPDT) and 10 manually interchangeable cams for versatility in hundreds of timing applications. Cams can be easily interchanged . . . just back off thumbscrew. One cam is adjustable without tools to give pulse from 2 to 58 seconds. Three cams are blank, for custom designed programs. The remaining six cams are 2-, 3-, 5-, 10-, 15-, and 30-seconds on and off. Camshaft rotates at 1 RPM. Motor operates from 105/130 V, 60 Hz AC.

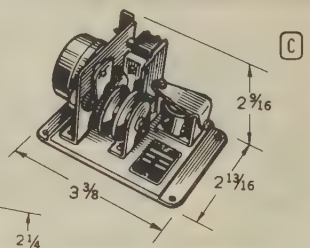
Stock No.	Mfr's Type	No. of Switches	Switch Rated	EACH			
				1-9	10-24	25-99	100-Up
664R0100	60-101	1	10 A at 125/250 VAC, ½ hp	16.95	14.95	13.45	12.45

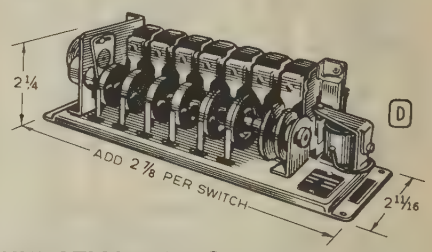
SERIES CM, MC, RA AND RC PROGRAMMING CAM TIMERS

- 4 Basic Foundation Units
- Single Cycle or Recycling Models
- 15 Gear Rack Assemblies
- Heavy-Duty Synchronous Motors









HOW TO ORDER CAM TIMERS

Complete Cam Timer consists of foundation unit (Series CM, MC, RA or RC) and gear rack assembly. (Foundation unit includes motor.) To order:
1. Select foundation unit desired—Series CM, MC, RA or RC. 2. Refer to Gear Rack Time Chart below and select desired timing cycle. Numbers to the left of chosen time cycle are the gear rack assembly Type and Stock Numbers. Number above the chosen time cycle indicates the correct foundation unit suffix. 3. Refer to the charts at the right for complete foundation unit Type and Stock Number. When ordering be sure to specify both Allied Stock number and Manufacturer's Type number. **Two parts must be ordered for complete timer.**

EXAMPLE: To order an MC foundation unit with four switches and a 6m time cycle, order an MC-6-4 (Stock number 815-0230), and a D-18 gear rack assembly (Stock number 815-0131).
Additional gear rack assemblies may be ordered separately.

GEAR RACK TIME CHART

In chart below s = seconds, m = minutes, and h = hours.

Stock No.	Gear Rack Mfr's Type	EACH	Foundation Unit Mfr's Type/CM, MC, RA or RC-					
			—2	—4	—5	—6	—8	—10
815-0129	E-12	3.00	10s	40s	2m	3m20s	20m	2h
815-0130	E-14	3.00	11.67s	46.67s	2m20s	3m53s	23m20s	2h20m
815-0061	C-12	3.00	15s	60s	3m	5m	30m	3h
815-0131	D-18	3.00	18s	72s	3m36s	6m	36m	3h36m
815-0028	B-12	3.00	20s	80s	4m	6m40s	40m	4h
815-0132	C-18	3.00	22.5s	90s	4m30s	7m30s	45m	4h30m
815-0030	B-15	3.00	25s	100s	5m	8m20s	50m	5h
815-0010	A-12	3.00	30s	2m	6m	10m	60m	6h
815-0012	A-14	3.00	35s	140s	7m	11m40s	70m	7h
815-0133	D-36	3.00	36s	144s	7m12s	12m	72m	7h12m
815-0014	A-16	3.00	40s	160s	8m	13m20s	80m	8h
815-0134	A-18	3.00	45s	3m	9m	15m	90m	9h
815-0018	A-20	3.00	50s	200s	10m	16m40s	100m	10h
815-0135	B-32	3.00	53.33s	213.4s	10m40s	17m47s	106m40s	10h40m
815-0022	A-24	3.00	60s	4m	12m	20m	2h	12h
815-0136	A-28	3.00	70s	280s	14m	23m20s	2h20m	14h
815-0024	A-30	3.00	75s	5m	15m	25m	2h30m	15h
815-0026	A-36	3.00	90s	6m	18m	30m	3h	18h

GLOSSARY OF TIMER FUNCTIONS

Reset Timers have mechanism so timer returns to starting position automatically after measuring a set time which can be delay or interval function. **Delay** refers to a situation requiring specific time delay before a load circuit is energized. **Interval** is where load is to be turned on and kept on for a specific interval, then turned off automatically. **Repeat Cycle Timers** have cams to turn snap-action switches on or off according to pre-set time intervals, in a definite sequence.

FOUNDATION UNITS

A SERIES CM RECYCLING SINGLE SWITCH UNITS

Repeats a continuous, adjustable On/Off electrical cycle. Unit consists of heavy-duty synchronous motor, adjustable cam, SPDT snap-action switch, assembled on base mount chassis. Cam is coupled to motor by a gear and rack assembly (ordered separately). Adjustable cam allows the On/Off cycle to be set anywhere within 2% to 98% of the total time cycle. Contacts rated 10 amps at 115 VAC or 220 VAC, 60 Hz. U.L./CSA approved. Shpg. wt: 1½ lbs. $2^{9}/_{16} \times 3^{3}/_{8} \times 2^{13}/_{16}$"

Stock No.	Mfr's Type	EACH			
		1-9	10-49	50-99	100-Up
815-0085	CM-2	22.50	19.15	16.85	15.65
815-0086	CM-4	22.50	19.15	16.85	15.65
815-0087	CM-5	22.50	19.15	16.85	15.65
815-0088	CM-6	22.50	19.15	16.85	15.65
815-0090	CM-8	22.50	19.15	16.85	15.65
815-0092	CM-10	22.50	19.15	16.85	15.65

B SERIES MC RECYCLING MULTI-SWITCH UNITS

Identical in operation to CM timer above, but controls two, four or six circuits. Cams are mounted on single drive shaft, coupled to motor by gear and rack assembly (order separately). Cams adjustable in any combination of timed sequences. Shpg. wt: 1½ lbs.

TWO-SWITCH UNITS

Stock No.	Mfr's Type	EACH			
		1-9	10-49	50-99	100-Up
815-0201	MC-2-2	37.00	31.50	27.75	25.75
815-0219	MC-5-2	37.00	31.50	27.75	25.75
815-0236	MC-8-2	37.00	31.50	27.75	25.75

FOUR-SWITCH UNITS

815-0203	MC-2-4	55.00	46.85	41.25	38.30
815-0221	MC-5-4	55.00	46.85	41.25	38.30
815-0230	MC-6-4	55.00	46.85	41.25	38.30
815-0246	MC-10-4	55.00	46.85	41.25	38.30

SIX-SWITCH UNITS

815-0205	MC-2-6	71.00	60.50	53.25	49.40
815-0240	MC-8-6	71.00	60.50	53.25	49.40
815-0248	MC-10-6	71.00	60.50	53.25	49.40

C SERIES RA SINGLE CYCLE SINGLE SWITCH UNITS

Unit provides single timed electrical cycle upon momentary actuation from a remote position. At actuation the relay mechanically disengages a lever from the cam notch, simultaneously starting the motor. At end of revolution pawl guides the lever into notch, stopping motor after completing one revolution. SPDT snap-action switch. Contacts rated 10 amps at 115 VAC, 60 Hz. U.L./CSA approved. Shpg. wt: 1½ lbs.

Stock No.	Mfr's Type	EACH			
		1-9	10-49	50-99	100-Up
815-0180	RA-2	32.00	27.25	24.00	22.25
815-0181	RA-4	32.00	27.25	24.00	22.25
815-0182	RA-5	32.00	27.25	24.00	22.25
815-0185	RA-10	32.00	27.25	24.00	22.25

D SERIES RC SINGLE CYCLE MULTI-SWITCH UNITS

Identical to type RA timer, but operates two, four, or six circuits. Provides single timed electrical cycle upon momentary actuation from a remote position. Cams individually adjustable. Combines advantages of MC Series with homing control of RA series. Shpg. wt: 1½ lbs.

FOUR-SWITCH UNITS

815-0349	RC-2-4	71.00	60.50	53.25	49.50
815-0358	RC-4-4	71.00	60.50	53.25	49.50

SIX-SWITCH UNITS

815-0360	RC-4-6	89.00	75.80	66.75	61.95
815-0369	RC-5-6	89.00	75.80	66.75	61.95

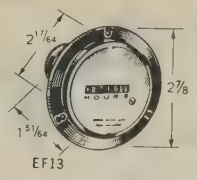
Want to Know More About Timers? Get Our Timing Circuits Book (Stock No. 664-9999) on Page *151*.

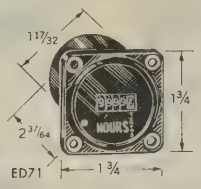
Elapsed Time Indicators and Counters

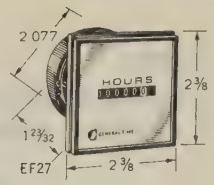
CONSERVE ENERGY · SAVE POWER

ELAPSED TIME INDICATORS DISPLAY NUMERICALLY THE PASSAGE OF TIME

ELAPSED TIME INDICATORS

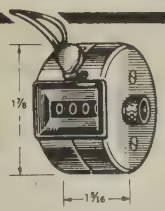






HAND TALLY 4-DIGIT COUNTER

- **Fits in Palm of Your Hand**
- **Weighs Less Than ¼ Pound**
- **Accurately Counts 0-9999**

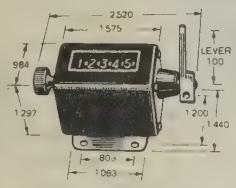


Fast pushbutton knob reset allows instantaneous, accurate "Stops" and "Starts" for every job. Large numerals can be read easily at a quick glance. Attractive polished chrome steel case resists perspiration stains and corrosion. Overall size, 1⅞x1⅜". Shpg. wt. ¼ lb.

910-0007. Type 63-835 ..... **Each 4.99**

ALLIED LOW-COST RESET COUNTERS

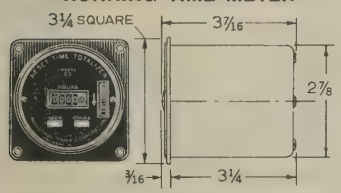
- **Ratchet or Hand-Operating Models**



Dependable counters, both with quick reset. **MODEL 0050.** Ratchet counter with 5-digit capacity, in black case. Maximum count speed, 500 per minute. Size, 1½x2½x1¼". **MODEL 0055.** Hand-operated desk tally counter with 4-digit capacity; chrome case. 2½x1⅜x2⅛". Shpg. wt. ½ lb.

Stock No.	Mfr's Type	EACH			
		1-9	10-24	25-49	50-Up
706R0050	0050	6.83	5.46	4.56	3.88
706R0055	0050	4.88	4.18	3.49	2.99

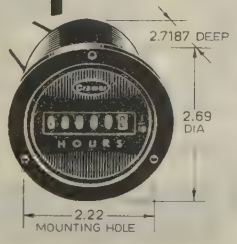
MODEL C-5 RUNNING TIME METER



C-5. Reset type. Mounted in a baked black finish steel housing. Reset wheel protrudes slightly out front of dial for thumb reset. Screw terminals on back of unit for wiring. Completely enclosed, moisture and dust resistant for longer life and greater operating efficiency. Count: 1/10 hr. Range: 10,000 hrs. 115 V, 60 Hz.

Stock No.	Mfr's Type	Each			
		1-4	5-9	10-24	25-Up
815-0053	C-5	46.00	39.20	36.70	34.50

NON-RESET ELAPSED TIME INDICATORS



SERIES 635. High accuracy motor with 6-digit register; large numerals on 1" wheels. Mounts in 2.22" dia. panel hole. Unit is 2.7187" deep, with 2.69" dia. bezel. U.L. Listed. For 115 volts, 60 Hz AC. Shpg. wt. ¾ lb. **635G,** 2½" Round

Stock No.	Mfr's Type	Total Count	EACH			
			1-9	10-24	25-49	50-Up
765-0632	635.GL100	99,999.9 minutes	13.52	12.83	11.48	10.80
765-0633	635.GM100	999,999 minutes	13.52	12.83	11.48	10.80
765R0634	635.GS100	99,999.9 hours	13.52	12.83	11.48	10.80
765-0635	635.GT100	999,999 hours	13.52	12.83	11.48	10.80

• Variety of Shapes and Mounting Styles

Wide variety of meters for use where accurate time readings are required. All are synchronous-motor driven. Round, square bezel, panel mount and rear mount available. Non-resetable, readout is digital with a range of five figures plus tenths; in hrs. and tenths or minutes and tenths *except 4 figures and tenths. Units are 120 VAC and 240 VAC, 60 Hz. Operating temp., —12°C to +55°C. Registers hours, tenths, unless otherwise noted. U.L. Recognized. NR types: non-reset.

Model No.	Bezel Inches	Depth Inches	Dia. Inches	Max. W Motor Rating	Leads or Terminals
EF13 NR	2⅞ rd.	1 51/64	2 17/64	2.5	6" leads
EF27 NR	2⅜ sq.	1 23/32	2 5/64	5.0	6" leads
ED71 NR*	1¾ sq.	2 37/64	1 17/32	2.5	11¼ leads

• Precision Synchronous Motor Driven

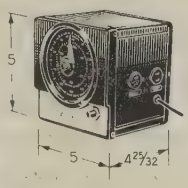
120 VOLTS AC 60 Hz

†Registers minutes and tenths, otherwise hours and tenths.

Stock No.	Type	Mfr's Type	EACH			
			1-9	10-24	25-49	50-Up
800-0110	NR	EF1333†	14.51	11.88	11.22	10.56
800R0112	NR	EF1335	14.51	11.88	11.22	10.56
800-0118	NR	EF2733†	17.16	13.97	13.20	12.43
800R0120	NR	EF2735	17.16	13.97	13.20	12.43
800-0108	NR	ED7112*	33.71	27.50	25.96	24.42

240 VOLTS AC 60 Hz

Stock No.	Type	Mfr's Type	EACH			
			1-9	10-24	25-49	50-Up
800-0113	NR	EF1335	15.89	12.92	12.21	11.49



INDUSTRIAL STOP CLOCKS

- **Extremely Fast Clutch Pull-In Time**
- **Synchronous Motor**
- **Automatic Wear Compensation**

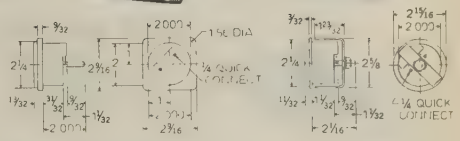
Measure time intervals for process and production controls, time study and many other industrial applications. Synchronous motor, cone clutch which provides exceptional pull-in speed, 360° engagement, and automatic compensation for any wear that may occur are only a few of the advanced features. Clutch pull-in time is so rapid that no compensation in the dial is required for inaccuracy. Remote start-stop and reset receptacles on side of case. Front panel reset button. Reset time: 0.010 second. Size, 5 x 5 x 4 25/32". 115 V, 60 Hz AC. Wt. 5 lbs.

MODEL SC-100. Measures 0.01 second to 60 seconds. Accuracy: 0.01 second.

MODEL SC-60. Measures 1 second to 60 minutes. Accuracy: 0.1 second.

Stock No.	Mfr's Type	EACH			
		1-9	10-24	25-49	50-Up
815-0435	SC-100	72.00	61.35	57.45	54.00
815-0432	SC-60	72.00	61.35	57.45	54.00

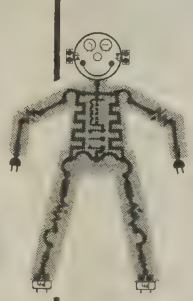
RUNNING TIME METERS

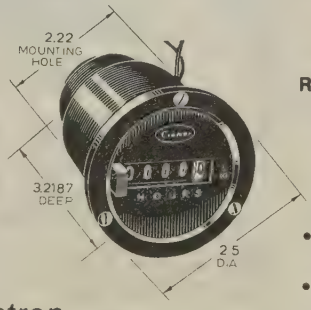


Non-resettable counters. In electrical apparatus wired in parallel with main On-Off switch; on non-electrical equipment wired between ground and primary of ignition coil; on diesel equipment connected to starting battery. C-6W heavy duty, with rugged pulse wound movement. C-9 powered by synchronous motor. C-9 flange mtg. with 4 screws in 2⅜" cutout. C-6W mtg. by bracket. Require 3⅝" behind panel. C-6W universal from 4-50 VDC. C-9—115 VAC. Wt. 1 lb. Five figures in hrs. and tenths

Stock No.	Mfr's Type	EACH			
		1-4	5-9	10-24	25-Up
815-0073	C-6W	21.00	18.06	16.90	15.90
815-0042	C-9	21.00	18.06	16.90	15.90

14





PUSH-BUTTON RESET ELAPSED TIME INDICATORS

- **High Accuracy Motor with 6-Digit Register**
- **Large Numerals on 1" Wheels**

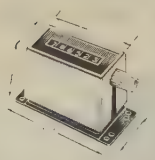
Alec Electron

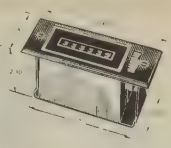
SERIES 636. Same as at left, but with pushbutton mechanism for instant reset to zero. M 5-digit register. Mounts in 2.22" dia. panel hole. Unit is 3.2187" deep with 2.5" dia. round bezel. For 115 volts, 60 Hz AC. Shpg. wt. ¾ lb.

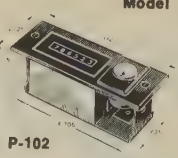
Stock No.	Mfr's Type	Total Count	EACH			
			1-9	10-24	25-49	50-Up
765R0636	636.X.E100	9999.9 seconds	31.81	30.16	26.99	25.40
765-0638	636.X.L100	9999.9 minutes	31.81	30.16	26.99	25.40
765R0639	636.X.S100	9999.9 hours	31.81	30.16	26.99	25.40

Electro-Mechanical and Solid-State Counters

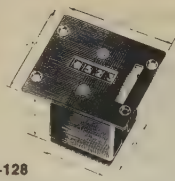
ALLIED® GENERAL-PURPOSE ELECTRICAL COUNTERS


Model 100

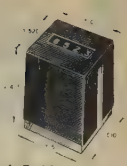

Model P-100


Model P-102

Model 127


Model P-128

Model 152


Model G-132

ALL MODELS U.L. LISTED AND CSA APPROVED

MODEL 100 BASE-MOUNT COUNTER. A 6-figure, reset, general-purpose, electro-mechanical counter which will count any movement that can be sensed electrically. Rated at 1000 counts/minute. Operating life exceeds 50,000,000 counts. Materials and design characteristics have been selected to assure a long and trouble-free life even in adverse industrial environments. Strong die-cast frame and housing provide rigid support, accurate alignment of operating components. Maintenance-free—all rotating parts are self-lubricating. Wt. 19 oz.

MODEL P-100 PANEL-MOUNT COUNTER. A 6-figure, reset counter for use in single- or multiple-unit panel mount applications. Rated at 1000 counts/minute and built to assure a life in excess of 50,000,000 counts. Exclusive **bold** numbers assure fast and accurate readings. Mounting features facilitate replacement of existing general-purpose counters without drilling new holes or using adapters. Same electro-mechanical features as Model 100 above. 18 oz.

MODEL P-102 PANEL-MOUNT KEY-RESET COUNTER. A 6-figure key-reset, electro-mechanical counter for use where resetting must be restricted to only a few persons. Rated at 1000 counts/minute with a life expectancy of over 50,000,000 counts. Styled for maximum readability even under poor viewing conditions. Space-saving decorative panel provides a "Thin-Line" look to harmonize with modern equipment. 22 oz.

MODEL 127 BASE-MOUNT COUNTER. A 4-figure, reset, electro-mechanical counter for use where space is limited but accuracy and top reliability are still mandatory. Rated at 1000 counts/minute with an operating life of over 50,000,000 counts. Big easy-to-read numerals for rapid, but correct, reading even when the counter is mounted above, below or to one side of eye level. Easy to install. Recommended for use where totalizing to 9999 before repeating is adequate. 11 oz.

MODEL P-128 PANEL-MOUNT COUNTER. A 4-figure reset counter incorporating all the standard operating and electrical features of Model 127, above. A panel plate permits interchangeability with competitive counters. Mounting plate is attached directly to the cover with two screws. Shpg. wt., 10 oz.

MODEL 152 BASE-MOUNT NON-RESET COUNTER. A 5-figure electro-mechanical counter with a unique combination of low cost and high reliability. Ideal for test labs, coin-operated equipment and other moderate-duty appliances. All-steel case houses a proven drive mechanism requiring no maintenance. Rated at 500 counts/minute with a life of 5,000,000 counts. Large white numerals on black wheels for fast and easy reading with poor light. 6½ oz.

MODEL G-132 BEHIND-PANEL NON-RESET COUNTER. A 4-figure electro-mechanical counter minimizing required panel space. Rated at 1000 counts/minute, built to last 50,000,000 counts. Tapped pads in die-cast cover provide a simple way of neat, secure mounting. 9 oz.

PRICE CHART FOR ALLIED ELECTRICAL COUNTERS

MODEL 100

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
620-0072	2-1006 115 VAC	25.10	23.02	20.00	17.45
620-0070	3-1006 24 VAC	29.10	26.69	23.20	20.25

MODEL P-100

620-0076	P2-1006 115 VAC	27.40	25.16	21.85	19.10
620-0074	P3-1006 24 VAC	31.40	28.84	25.05	21.85

MODEL P-102

620-0165	P2-1026 115 VAC	37.90	34.80	30.25	26.40

MODEL 127

620-0028	2-1274 115 VAC	19.80	18.20	15.80	13.80

MODEL P-128

620-0032	P2-1284 115 VAC	20.40	18.74	16.30	14.20
620-0030	P3-1284 24 VAC	24.40	22.41	19.50	16.95

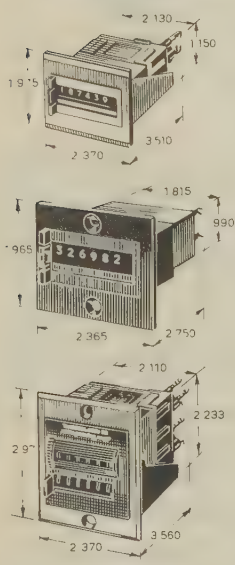
MODEL 152

620-0026	2-1525 115 VAC	9.50	6.84	5.05	4.40

MODEL G-132

620-0034	G2-1324 115 VAC	19.80	18.20	15.80	13.80

MINIATURE INSTRUMENT PANEL TOTALIZERS



MODEL F300 COUNTER. A 6-figure pushbutton reset electro-mechanical unit with panel-mounting frame, plug-in socket. Rated 25 Hz DC and 16 Hz AC. Life expectancy exceeds 200,000,000 counts. Decorative plate conceals mounting screws for "clean" look. Use where front-of-panel mounting, plug-in replacement counter features are desired. Shpg. wt., 6 oz.

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
620-1100	F2-3106 115 VAC	44.35	40.69	35.35	30.85
620-1000	F8-3206 24 VDC	38.50	35.34	30.70	26.80

MODEL R300 COUNTER. A 6- or 4-figure pushbutton reset unit for front or rear panel mounting. Rated 25 Hz DC, 16 Hz AC. Life, over 200,000,000 counts. For fixed panel use where plug-in feature is not required. Shpg. wt., 8 oz. *6 figures. †4 figures.

620-1510	R2-3106 115 VAC*	35.30	32.43	28.20	24.60
620-1500	R8-3206 24 VDC*	30.50	27.99	24.30	21.20
620-1520	R2-3104 115 VAC†	35.30	32.43	28.20	24.60
620-1515	R8-3204 24 VDC†	30.50	27.99	24.30	21.20

MODEL F500 PREDETERMINING COUNTER. A 6-figure panel-mounting pushbutton reset unit with panel plug-in socket box. Rated at 25 Hz DC and 16 Hz AC. Built-in snap-action SPDT switch is actuated when the present number is reached. The switch is restored to its original position when the counter is reset manually. Wt. 8 oz.

620-2100	F2-5106 115 VAC	79.25	72.75	63.25	55.15
620-2000	F8-5206 24 VDC	73.15	61.16	58.40	50.90

COUNTER REPLACEMENT CHART

NON-RESET TYPES

Stock No.	ITT No.	Redington No.	Durant No.	Veeder Root No.	Remarks
620-0026	CE40AN502	2-1525 115 AC	N/A	743795-001	.....
620-0034	CE40BN502	G2-1324 115 AC	4Y9434-T	N/A	G2-1324 (4 fig) CE40BN502 (5 fig)

RESET TYPES

620-0028	CE40AS402	2-1274 115 AC	4Y9434-B	I 150704	.....
620-0030	CE40BS401	P3-1284 24 AC	4Y9434-B	0-150704 24 AC	.....
620-0032	CE40BS402	P2-1284 115 AC	4Y9434-PB	0-150704 115 AC	.....
620-0070	CE900AS601	3-1006 24 AC	6YIMF 24 AC	744396-013	.....
620-0072	CE900AS602	2-1006 115 AC	6YIMF 120 AC	744396-011	.....
620-0074	CE900BS601	P3-1006 24 AC	6YIMFPM 24 AC	744396-213	.....
620-0076	CE900BS602	P2-1006 115 AC	6YIMFPM 115 AC	744396-211	.....
620-0165	CE900BK602	P2-1026 115 AC	6Y12MF PM 120 AC	744396-241	.....

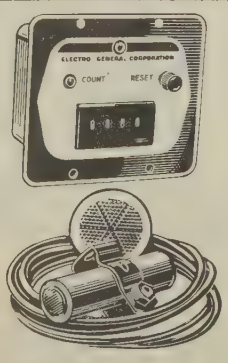
MINIATURE PUSHBUTTON TOTALIZERS

Stock No.	Hecon No.	Redington No.	Sodeco No.	Veeder Root No.	Remarks
620-1000	G0404-465-4	F8-3206 24 DC*	RG 162A	744096-316	*Complete Assembly
620-1100	G0404-489-1	F2-3106 115 AC*	RG 163A	744096-311	*Complete Assembly

Stock No.	ITT No.	Redington No.	Sodeco No.	Veeder Root No.	Remarks
620-1500	.....	R8-3206 24 DC	N/A	N/A	6 figure
620-1510	.....	R2-3106 115 AC	N/A	N/A	6 figure
620-1515	.....	R8-3204 24 DC	N/A	N/A	4 figure
620-1520	CE59BP402	R2-3104 115 AC	N/A	N/A	4 figure

PREDETERMINING COUNTERS

Stock No.	Hecon No.	Redington No.	Sodeco No.	Veeder Root No.	Remarks
620-2000	G0422-464-4	F8-5206 24 DC*	RP 112A	744195-316	*Complete Assembly
620-2100	G0422-489-1	F2-5106 115 AC*	N/A	744195-311	*Complete Assembly

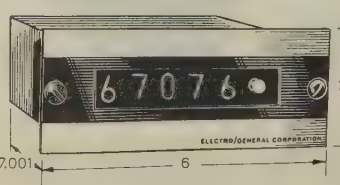


A COMPLETE COUNTING & CONTROLLING PACKAGE

MODEL BPEC154. Consists of BP400 solid-state counter and EC15 photoelectric drive, described below. Ready to use on 115 VAC. Shpg. wt. 1 lb.
626-1000. 1-9...Each 208.50 10-Up...Each 181.85

MODEL BP400 PRESET COUNTER. Controls switching from 1 to 9999 pulses. Input: 115 VAC contact closures. Output: hold, reset locally, automatically or remotely. Panel mount. LED indicators for power-on and input pulses. 3.63x4.00x2.31″. Shpg. wt. 12 oz.
626-1500. 1-9...Each 149.00 10-Up...Each 129.95

MODEL EC15 PHOTOELECTRIC SCANNER. Miniature reflective driver needs no other power when used with BP400 counter. Point scanner at 1⅝″ reflector and, when infrared beam is cut (from up to 3′ away), pulse drives counter one count. 3⅜6x⅞″ dia. 6′ cable. 4 oz.
626-1550. 1-9....Each 57.50 10-Up....Each 50.15



SOLID-STATE 5-DIGIT ACCUMULATOR

SPECIFICATIONS

Input: 5-25 v peak, 1 kHz max., or SPST N.O. contact closure, 60 Hz max. **Input Impedance:** 10k. **Display:** ½″ Nixie numerals. **Reset:** manual or external. **Size:** 2.38x6.00x7.00″. **Weight:** 2 lbs. **Mounting:** front panel, two 10-32 screws (incl.).

SERIES 16DA. Digital accumulator with 5-digit display. Features large numerals, no moving parts, readouts to 99999, and input essentially immune to stray voltage or contact bounce. Accumulated count is displayed continuously. May be paralleled for simultaneous resetting.
626-2000. Type 16DA5A.
1-9 Each 145.00 10-Up Each 133.10

Larger Quantity Price Breaks Available on Request

Digital Test Equipment

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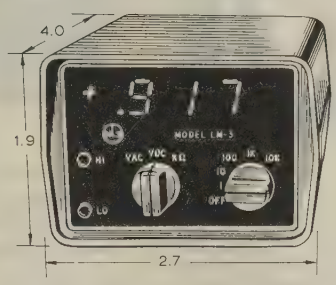
40MHz AUTORANGING FREQUENCY COUNTER

- **1 Hz Resolution**
- **Automatic Ranging 20Hz-40MHz Guaranteed**
- **Six-Digit Solid-State Readout With Discrete Reliable TTL Logic**

Model 1801. Ideal for fast and easy oscillator tuning, transmitter adjustment, frequency monitoring, audio frequency analysis and much more. Features an AUTO-function that orders the 1801 to automatically fill all display positions and indicate the range in kHz or MHz. Accepts wide input levels, normally with no adjustments at all. Suppresses leading digit for extra resolution above 1 MHz on 1-SEC gate time. Has a 10 MHz crystal-controlled time base oscillator for real stability—and it's user-convertible to an external time base. Compatible with prescalers to extend frequency into the UHF spectrum.

Auto Gate Time: 10-mSEC or 100-mSEC, chosen automatically. **Manual Gate Time:** 1-SEC accuracy. **Accuracy:** ± time base accuracy, ±1 count. **Resolution:** 1 Hz. **Display:** Input signal frequency, automatic decimal, kHz illuminated on panel. **Input:** 1 meg/25 pF. **Max Input Voltage Peak AC + DC:** 200 V at up to 500 Hz. With PR-25 probe. Shpg. wt. 6 lbs.
731-1801 ..... Each 230.00
4-Up 207.00



DIGITAL MULTIMETER

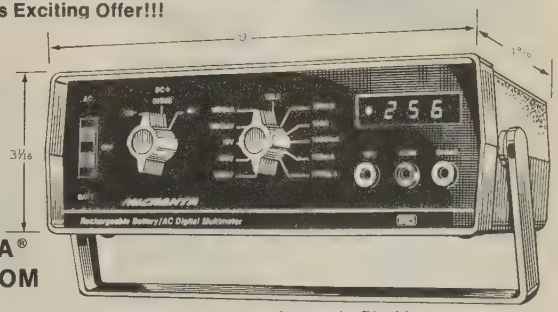
Model LM-3. A full 3 digits, automatic zeroing, automatic polarity, battery powered, MOS/LSI construction, less than 2" high—and so rugged it's "drop-proof". Big, bright numerical readout is readable from up to 8 ft. away. Has one-millivolt sensitivity and resolution for AC and DC voltage with readings from 1 mV to 500 V. Input impedance is 10 megs on both DC and AC volts. Automatic zeroing eliminates full-scale and zero-set adjustments. Built-in protection on all functions—even if you connect to a voltage source in the resistance mode. Automatic overload indicator—numeral "1" flashes on all inputs exceeding full scale.

DC and AC Volts: 0-1, 10, 100, 1000 with ±0.1% full scale accuracy ±1% reading (50-400 Hz on AC). **Resistance:** 0-1, 10, 100, 1000, 10,000 kilohms ±0.1% full scale ±1% readings. INCLUDES 3 rechargeable batteries with charger. Size: 1.9x2.7x4.0" deep.
667-1000 ..... Each 128.50
4-Up 115.65

ALLIED EXCLUSIVE!

A DVOM Priced Under $100 (4 Up)

See Inside Front Cover for More Information on This Exciting Offer!!!



MICRONTA® DIGITAL VOM

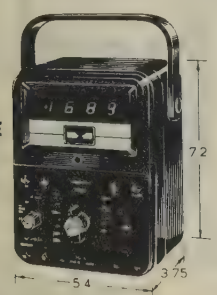
- **1-Megohm Input Impedance**
- **Battery or AC Operation**
- **3-Digit 0.3" High LED Readout**
- **Automatic Blanking**
- **25 Hz to 10 kHz Available**
- **Private Labeling Available**

Model 22-200. An extremely accurate, portable digital VOM with battery/AC versatility—at a really low price! Features 3½ digits in overrange for easy readability, automatic blanking for extended battery life, 5 readings per second sample rate. Has 75% overrange, with maximum input limits. Lamp indicator for overrange and out-of-range. One-meg input on all ranges. AC response is 25 Hz to 10 kHz. Internal mercury cell for calibration reference. Operates on 115V 60 Hz AC or 9 "AA" penlight rechargeable or regular batteries. 240 V and 50 Hz options at extra cost.

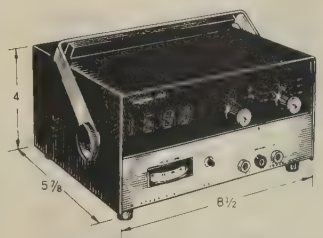
Ranges. DC Volts: 0-1, 0-10, 0-100, 0-1000, with 1% accuracy ±1 digit. **AC Volts:** 0-1, 0-10, 0-100, 0-1000, with 1½% accuracy ±1 digit. **DC Current:** 0-1 and 0-100 mA, 0-1 amp, with 1½% accuracy ±1 digit. **AC Current:** 0-1 and 0-100 mA, 0-1 amp, with 2% accuracy ±1 digit. **Resistance:** 0-100 ohms, 1K, 10K, 1 megohm, with 2% accuracy ±1 digit.
910-4671. 1-3 ..... Each 119.95 4-Up ..... Each 99.95

We can private label this DVM with your company logo (1000 piece minimum). Call Allied for details and even lower, quantity prices!

PORTABLE 3½-DIGIT VOM

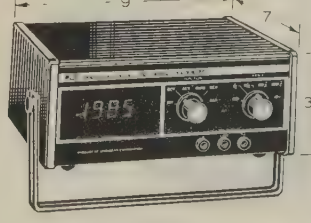


Model 360. Features a non-blinking 0.33" LED display with auto-polarity, and 29 ranges. Has analog indicator for scanning of nulls and peaks, and an analog output that permits interfacing with chart recorders. Solid-state IC design. Overrange indication is automatic beyond 1999. **DC Volts:** 0-199.9 mV (100 megs), 0-1.999 V (1000 megs), 0-19.99-199.9-1100 (10 megs). **AC Volts:** 0-199.9 mV, 0-1.999-19.99-199.9-600 (1 meg at 150 pF). **DC Current:** 0-19.99-199.9 uA, 0-1.999-19.99-199.9 mA, 0-1.999-10 amps. **AC Current:** 0-199.9 uA, 0-1.999-19.99-199.9 mA, 0-1.999-10 amps. **Resistance:** 0-199.9-1.999k-19.99k-199.9k-1.999 megs-19.99 megs. Shpg. wt. 4½ lbs. For 117 VAC or 4 nickel cadmium rechargeable "C" cells.
919-0360. Ea. 379.16 4-Up.... Ea. 325.00



PORTABLE DIGITAL READOUT VOM

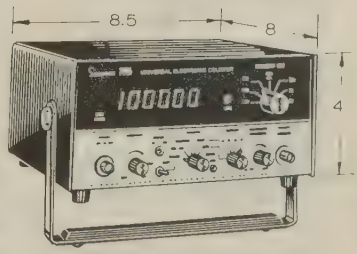
Model 460. Self-contained battery or line operation. Automatically recharges batteries whenever line operated. Numerals are formed by positive seven-segment build-up. Automatic plus or minus and overrange indication.
Analog meter readout shows peaks or nulls at a glance, tells test area indicated and test battery condition. **Ranges:** (Maximum Readings): AC, DC Volts, 199.9 mV; 1.999, 19.99, 199.9, 1000 V (600 V on AC). **AC, DC Current:** 199.9 μA; 1.999, 19.99, 199.9, 1999 mA. **Resistance:** 199.9 ohms; 1.999, 19.99, 199.9, 1999k ohms; 19.99 megohms. **Accuracy:** VDC, ±1% or reading ±1 digit; VAC, ±0.5-1.0% or reading ±1 digit. Handle acts as tilt-up base. Metal case. Size 4x8½x5⅞". For 115V, 50/60/400 Hz or 4 nickel-cadmium "D" batteries. Batteries not supplied.
919-0460. Ea. 461.67 4-Up.... Ea. 395.00



3½-DIGIT MULTIMETER

Model 282. Features a large, very bright non-blinking display. The circuitry is solid-state, and has 100% overrange capability on every range. Automatic polarity and decimal point positioning. On DC ranges, a minus sign appears when the voltage is negative. Features analog-to-digital converter for long-term stability. 10-meg-ohm input on both AC and DC voltage ranges.

DC Voltage: 0-1, 10, 100 volts, ±0.5% of reading, ±1 L.S.D.—1000 volts ±1.5% of reading ± L.S.D. **DC Current:** 1, 10, 100 mA, ±1% of reading, ±1 L.S.D. 100 mA, ±1.5% of reading, ±1 L.S.D. **AC Current:** 1, 10, 100 mA, ±1.5% of reading, ±1 L.S.D.—100 mA, ±2% of reading, ±1 L.S.D. **Resistance:** 100 ohms, 1k, 10k, 100k, 1 meg, ±1% of reading, ±1 L.S.D. —10 meg ±2% of reading, ±1 L.S.D. With PR-21 probe. For 105/125 VAC, 50/60 Hz. Shpg. wt. 3 lbs.
731-0282. 1-3 Ea. 200.00 4-Up Ea. 190.00

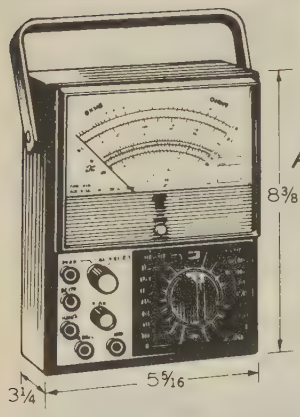


MODEL 7026 SIX-DIGIT FREQUENCY COUNTER

Measures frequency, time intervals, period and frequency ratio. Provides numerical display of average frequencies from 5 Hz to 50 MHz. Totalizes pulses over a standard time range. Automatic overrange, up to 9-digit resolution. Readouts include decimal. **Range:** 5 Hz to 50 MHz in 7 ranges. **Period Range:** Single period, 100 usec to 0.2 sec. Multiple period, 100 nsec to 0.2 sec. **Frequency Ratio:** Single 1 to $1.999999x10^6$ (multiple, 0.001 to $1.999999x10^6$). **Time Interval:** 100 usec to $1.999999x10^6$ sec. **Totalization:** 0.0 to $1.999999x10^6$ counts. **Time Base:** 0.00001, 0.0001, 0.001, 0.01, 0.1, 1.0, and 10.0 seconds. **Sensitivity:** Channel A, 50 millivolts rms. Channel B, 0.1 V rms. 200 H to 2 MHz; 0.3 V rms 5 Hz to 200 Hz. **Maximum Input:** 230 V rms on 0.1 volt range. For 115/230 V, 50-60 Hz. 8 lbs.
919-2726. 1-3 Ea. 449.00 4-Up Ea. 385.00

Allied Test Instruments

MICRONTA® PRECISION-CRAFTED MULTITESTERS



Alec Electron

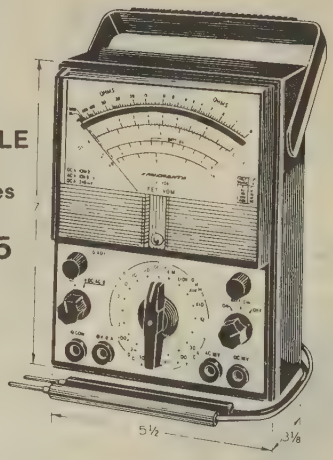
100,000 OHMS/VOLT MULTITESTER

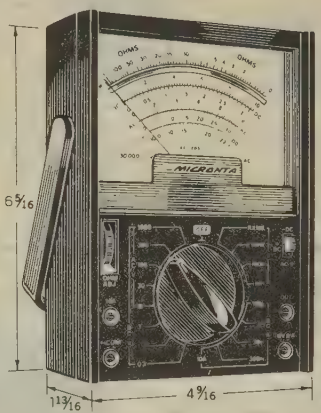
44.95

FIELD EFFECT PORTABLE VOM

21 Ranges

59.95





30,000 OHMS/VOLT MULTI-TESTER

29.95

- **Double Jeweled 4″ Meter**
- **Meter Protection Circuit**

Model 22-207. 27 ranges. Double jeweled D'Arsonval 4 inch meter. Mirrored scale eliminates parallax for more precise reading. Meter protection circuit prevents overload damage. Reverse polarity switch. Carrying handle doubles as tilt stand for workbench. Ranges: DC Volts: 0-0.5-2.5-10-250-1000 at 100k ohms/volt. AC Volts: 0-5-10-50-250-1000 at 10k ohms/volt. DC Current: 0-10uA, 500uA, 5-50-500 mA, 10 A. Resistance: 0-1-10k 1-10-100 meg. Decibels: −20 to +62 in 5 ranges. Accuracy: ±3% DC, ±4% AC. Size: 8⅜x5 5/16x3¼ inches. Supplied with leads, batteries and instructions.

910-4672 ..... **Each 44.95**

Model 22-206. The accuracy and high input impedance of a VTVM now in a portable FET VOM. Ultra-sensitive 40uA meter with "Double Overload Protection" to guard against burnout. Mirrored scales eliminate error-causing parallax. Calibrate adjust button for exact readings on all ranges. Also features polarity reverse switch, zero adjust and a single-knob range selector. 1% precision resistors. Ranges: DC Volts, 0-2.5-10-50-250-1000 at 10,000 ohms/volt. AC Volts, 2.5-10-50-250-1000 at 45 ohms/volt. DC Current; 0-25uA, 2.5-25-250 mA. Resistance; Rx1, Rx10, Rx100, Rx1000, Rx100,000 (10 center scale). Decibels, −20 to +62 in 5 ranges. Accuracy: ±3% DC, ±4%AC. Size: 7x5½x3⅛″. Comes complete with test leads, batteries and complete instructions.

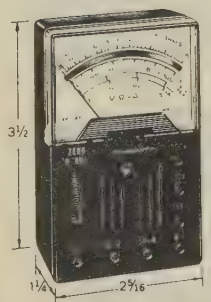
910-4670. FET VOM ..... **Each 59.95**

- **27 Ranges—Single Knob Control**
- **Three-Color 4″ Mirrored Scale**
- **Polarity Reversal Switch**

Model 22-203. Allied's own precision Micronta multitester features a 4″ meter with three-color mirrored scale for easy, accurate readings at a glance. Polarity switch permits reversal without changing leads. Ranges: DC Volts, 0-0.3-1-3-10-30-100-1000 at 30,000 ohms/V sensitivity; AC Volts, 0-10-30-100-300-1000 at 10,000 ohms/V; DC Current, 0-100 μA, 0-3-30-300 mA; Resistance, 0-1k-10k-1 megohm-10 megohms; Decibels, −10 to +62 in five ranges. Output jack; ohms adjust control; zero adjust. Comes complete and ready to use with test leads, batteries and easy-to-follow instructions. Size 6 5/16 x 4 9/16 x 1 13/16″. Shpg. wt. 4 lbs.

910-4549 ..... **Each 29.95**

ECONOMY MICRONTA® MULTITESTERS THAT REALLY PERFORM!



Handy Pocket Size

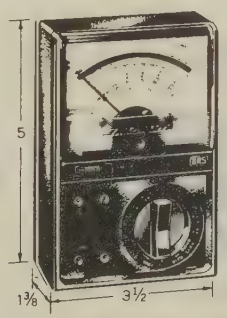
8.95

1000 OHMS/VOLT POCKET 8-RANGE MULTITESTER

- **AC and DC Ranges**
- **1% Precision Resistors**

Model 22-027. Fits right in your pocket—has easy-to-read two-color 2″ meter, pin jacks for all ranges, 1% resistors for accuracy. Perfect for shop, home or on-the-go. Ranges: AC/DC Volts, 0-15-150-1000 V; DC Current, 0-150 mA; Resistance, 0-100,000 ohms. Accuracy: ±3% full-scale on DC ranges, ±4% on AC ranges. Zero adjustment. Mirrored scale eliminates parallax. 3½x2 9/16x1¼″ bake-lite case. Comes with test leads, battery. Shpg. wt. 1 lb.

910-4527 ..... **Each 8.95**



Superb Quality—Low, Low Price

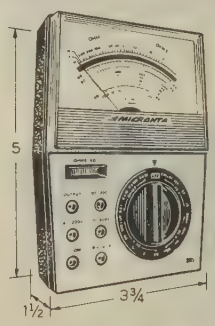
15.95

20,000 OHMS/VOLT 18-RANGE MULTITESTER

- **Off Position in Switch**
- **Zero Adjust Control**

Model 22-201. Quality engineered meter at a fantastic low price! Meter has easy-to-read 3-color mirrored scale. Ranges: DC Volts, 0-5-25-125-500-1000 at 20,000 ohms/V; AC Volts, 0-10-50-250-1000 at 10,000 ohms/V; DC Current, 0-50μ A, 0-250 mA; Resistance, 0-2k-20k-2 megohms; Decibels, —20 to +62. Overload protection circuit. Output jack. Accuracy: 3% except 500 and 1000 V ranges, 4%. With leads, battery. Overall size, 5x3½x1⅜″. Wt. 1 lb.

910-4546 ..... **Each 15.95**



Easy to Read and Use

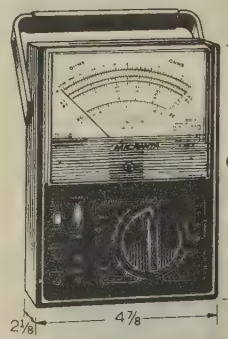
21.95

20,000 OHMS/VOLT 24-RANGE MULTITESTER

- **Big Mirrored Scale**
- **With Battery and Leads**

Model 22-202. Versatile and accurate—has range switch with off position, easy-to-read scale. Ranges: DC Volts, 0-0.6-3-15-60-300-600 at 20,000 ohms/V sensitivity; AC Volts, 0-15-60-150-600-1200 at 10,000 ohms/V; DC Current, 0-60 μA, 0-3-30-300 mA; Resistance, 0-2k-20k-200k-2 megohms; Decibels, —20 to +63. Output jack. Zero adjust. Includes battery and test leads—ready for use in shop or field. 5 9/16 x 3 15/16 x 1½″. Shpg. wt. 1 lb.

910-4655 ..... **Each 21.95**



34.95

Single Function Switch

50,000 OHMS/VOLT MULTITESTER

Model 22-204. 43 ranges. Ranges: DC Volts: 0-250 mV, 2.5-10-50-250-1000 at 50k ohms/volt; 0-125 mV, 1.25-5-25-125-500 at 25k ohms/volt. AC Volts: 0-10-50-250-1000 at 10k ohms/volt; 0-5-25-125-500 at 5000 ohms/volt. DC Current: 0-50 uA, 5-50-500 mA at 50k ohms/volt; 0-25 uA, 2.5-25-250 mA, 5A at 25k ohms/volt. Resistance: 0-2-20-200k-2-20 megs. Decibels: −20 to +62 in 8 ranges. Accuracy: ±3%DC, ±4%AC. Size: 6 11/16x4⅞ x2⅛″.

910-4660 ..... **Each 34.95**

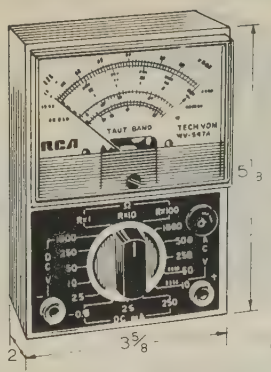
VOM'S and VTVM'S

"BLUE LINE" VOLT–OHM–MILLIAMMETERS

Ⓐ WV-547A TECH VOM

A tremendously precise instrument at an amazingly low price! Takes rugged treatment without loss of accuracy and will go anywhere for general-purpose testing and servicing applications. **DC Voltage:** 0 to 1000V in six ranges. **DC Current:** 0 to 250mA three ranges. **AD Voltage:** 0 to 1000V in five ranges. **Decibels:** −20 to +22dB, +22 to +35dB. **Resistance:** Rx1, Rx10, Rx100 (measures 1 ohm to 500K ohms). **Sensitivity:** DC Volt, 20,000 ohms/volt; AC Volt, 9000 ohms/volt. **Accuracy:** DC Volt, ±3% of full-scale reading; AC Volt, ±4% of full-scale reading. **Wt.** 10.5 oz.

901-4747. 1-3 ..... **Each 19.95** **4-Up** ..... **Each 17.95**



NEW!

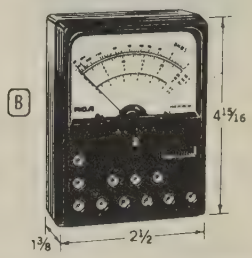
FOR SERVICEMAN, TECHNICIAN OR HOBBYIST

- Zener Diode Meter Protection
- Precision Resistors for All Ranges
- Attractive Dark Blue Cases
- Models to Meet Any Range or Sensitivity Requirements
- Temp. Compensated

Ⓑ WV-516A COMPACT LOW-COST VOM

Sensitivity: 2000 ohms/V AC-DC. **Ranges:** DC or AC rms Voltage: 0.1 to 1000 V in 4 ranges. **DC Current:** 10 mA to 250 mA in 3 ranges. **Resistance:** 2 ohms to 200k in two ranges. **Accuracy:** DC, ±3%, AC, ±4%. Separate pin jack for each function and range. With leads, battery. 2½ x 4 15/16 x 1 3/8". **Wt.** 1 lb.

901-4716. 1-3 ..... **Each 18.00** **4-Up** ..... **Each 14.95**



Ⓒ WV-518A 20,000 OHMS/VOLT VOM

Excellent general-purpose VOM. Two-color meter with mirror scale. Panel-mounted fuse protects ohms-divider resistors. Measures **DC voltages** from .01 to 500 V in four ranges, **AC voltages** (rms) from .05 to 500 V in four ranges; **DC current** from 10 uA to 500 mA in four ranges; **Resistance** from 1 ohm to 2 megohms. **Accuracy:** DC, ±3%; AC, ±4%. **Sensitivity:** DC, 20k ohms/V; AC, 10k ohms/V. Test leads, batteries. 5⅛ x 3½ x 1⅞". **Wt.** 1½ lbs.

901-4718. 1-3 ..... **Each 38.00** **4-Up** ..... **Each 34.20**

Ⓓ WV-519A 50,000 OHMS/VOLT VOM

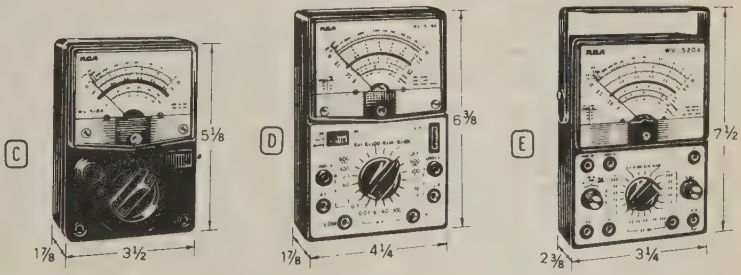
Three-color aluminum panel. Three-color meter with mirror scale. DC polarity switch. **Sensitivity:** DC, 50K ohms/V; AC, 10K ohms/V. **Ranges: DC Voltage:** 5 mV to 1200 V in 8 ranges. **AC rms Voltage:** .01 to 1200 V in 6 ranges. **DC Current:** 5 uA to 12 A in 5 ranges. **Resistance:** 1 ohm to 1 megohm in 4 ranges. **Decibels:** −20 to +57 dB in 5 ranges. With 22.5 and 1.5 V batteries, leads. **Accuracy:** DC, ±3%; AC, ±4%. 4¼ x 6⅜ x 1⅞". **Wt.** 2 lbs.

910-4719. 1-3 ..... **Each 47.00** **4-Up** ..... **Each 42.30**

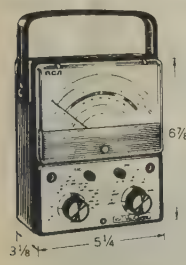
Ⓔ WV-520A HIGH SENSITIVITY VOM

High sensitivity of 100k ohms/V DC, 10k ohms/V AC. Three-color meter, mirror scale, aluminum panel. **Ranges: DC Voltage;** 10 mV to 1500 V in 8 ranges; **AC rms Voltage:** 0.1 to 1500 V in 6 ranges. **DC current:** .05 mA to 5 A in 6 ranges. **Resistance:** .5 to 20 megohms in 4 ranges. **Decibels:** −20 to +55.5 dB in 5 ranges. **Accuracy:** DC, ±3%; AC, ±4%. Test leads. 3¼ x 7½ x 2⅜". **Wt.** 3 lbs.

910-4720. 1-3 ..... **Each 65.00** **4-Up** ..... **Each 58.50**



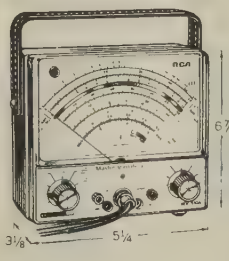
No-Stick Protected Meter • Dual-Detent Switch • 5 Functions



MODEL WV-500B SOLID-STATE VOLTOHMYST

Battery operated meter has ranges for both rms and peak-to-peak AC volts. Ideal for audio, radio, TV and industrial servicing and testing. Ranges: DC volts, 0-0.01-0.5-1.5-5-15-150-500-1500. AC volts (rms), 0-0.2-1.5-5-15-50-500-1500. AC volts (p-p), 0-0.5-14-42-140-420-1400-4200. DC current in eight ranges from 0.01 mA to 1.5 A. Seven overlapping resistance ranges from 0.2 ohms to 1000 megohms. AC frequency response (on 1.5 and 5 VAC ranges), ±1 dB, 30 Hz to 3 MHz. 6⅞ x 5¼ x 3⅛". With probe, batteries. Shpg. wt. 3½ lbs.

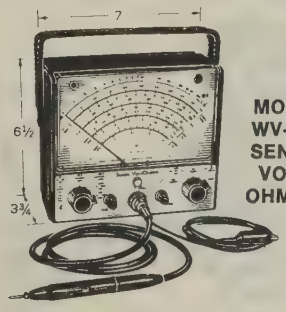
901-4700 ... Ea. 114.00 **4-Up ... Ea. 102.60**



MODEL WV-510A MASTER VOLTOHMYST

The perfect instrument for the professional who wants a quality testing tool, at an economical price. For a wide range of industrial, institutional and lab uses. Measures DC, 0.01-1500 volts, in 8 ranges; AC, 0.2-1500 volts; Direct Current from 0.01 mA to 1.5 A; AC p-p voltage from 0.5 to 4200 volts; resistance values from 0.2 ohm to 1000 megohms. Accuracy: ±3% of full scale reading. With WG-401A probe and cable, alligator clip, current leads, instructions. 110-135 V, 50-60 Hz AC. 6⅞ x 5¼ x 3⅛". Shpg. wt. 8 lbs.

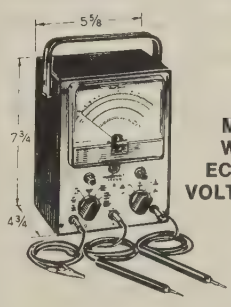
901-4710 ... Ea. 145.00 **4-Up ... Ea. 130.50**



MODEL WV-98C SENIOR VOLT-OHMYST

Electronic burnout protection. Rugged 200 μA meter movement and 1% precision resistors for high accuracy. 7 voltage ranges for AC p-p and rms V. 8 ranges for DC V. 7 resistance ranges. Reads AC rms and DC V to 1500; AC p-p V to 4200. 0.5 VDC scale. Resistance 0.2 ohm-1000 megs. DC input resistance 11 megs. AC input impedance from 830k ohms and 70pF to 1.5 megs and 60pF. Test probe, shielded cable, instructions. 6½ x 7 x 3¾". Operates on 110-130 VAC. Shpg. wt. 6 lbs.

901-4598 ... Ea. 114.00 **4-Up ... Ea. 102.60**

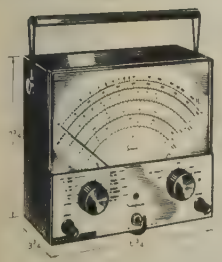


MODEL WV-77E ECONOMY VOLTOHMYST

Ranges: AC rms/DC volts: 0-1.5-5-15-50-150-500-1500; AC p-p volts. 0-4-14-40-140-400-1400-4000; resistance. 0-1000-10k-100k ohms; 0-1-10-100-1000 megohms. AC frequency response: 5% from 40 Hz to 5 MHz on 1.5, 5 and 15 V rms and 4, 14 and 40 V p-p range. Accuracy: DC, 3% of full scale; AC, 5% of full scale. Has individual scales for 1½-V rms and 4-V p-p. 7¾ x 5⅝ x 4¾". With ultra-slim probes and extra-flexible test-lead cables, instructions. 105-125 VAC. Shpg. wt. 5 lbs.

901-4577 .... Ea. 89.00 **4-Up .... Ea. 80.10**

15



... DO FASTER, MORE DEPENDABLE WORK!!!

HIGH-ACCURACY VTVM FEATURING 16-MEGOHM INPUT

- 40% Less Circuit Loading
- Less than 1% Tracking Error
- ½ Volt DC Range
- Large 7" Meter
- ±3% Accuracy

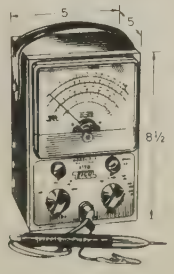
MODEL 312. Produces 40% less circuit loading than most conventional VTVM's. With this VTVM on your workbench or in your laboratory you can do faster, more dependable work. Tracking error is less than 1%. Accuracy is ±3% on all AC and DC ranges. Multiple ranges, including a ½ volt DC rangeC that more than meets today's solid-state testing requirements. Oversized 7 inch meter for more precise readings with less eyestrain. Controls include multiposition range selector, function selector, ohms adjust and zero adjust. Specially designed circuits protect meter against burnouts.

SPECIFICATIONS. Ranges: AC-DC Volts, 0-0.5-1.5-15-50-150-500-1500; AC p-p Volts, 0-14-40-140-400-1400-4000. Resistance: X1, X10, X100, X1000, X10k, X100k (with 10 ohms center). Response: ±3%, 15 Hz to 3 MHz. Accuracy: ±3% of full scale on all voltage ranges, 3% of arc on all resistance ranges. For 117 volt operation. 5 lbs.

919-0312. 1-3 ..... **Each 140.00** **4-Up** ..... **Each 120.00**

Model 0155 High Voltage Probe. Shipping weight: 1 pound.

919-0155. 1-3 ..... **Each 27.13** **4-Up** ..... **Each 23.25**

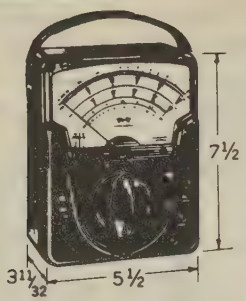


MODEL 232W 4½-INCH VTVM

Ideal for color TV and all general service. Gives true peak-to-peak measurements on separate scales. Includes deluxe features of Model 249W below, but has 4½" meter. With Uniprobe—half turn of probe tip selects DC or AC/ohms ranges. Ranges: p-p volts, 0-4-14-42-140-420-1400-4200 volts; DC/rms volts, 0-1.5-5-15-50-150-500--1500 volts; Resistance, 0-1000 megohms in seven ranges. Frequency response, 30 Hz to 3 MHz. 8½ x 5 x 5". 105-125 VAC. Shpg. wt. 5 lbs.

775-0233 ..... **Each 81.78** **4-Up** ..... **Each 69.95**

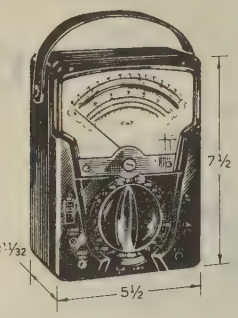
Portable Miniature and Standard VOM's



MODEL 630-PLK TYPE 3 VOM

Transistorized switching circuit protects meter movement and all components from overload damage. Sensitivity: 20,000 ohms/volt DC, 5000 ohms/volt AC. Accuracy: ±2% on DC, ±3% on AC. DC volts: 0-2.5-10-50-250-1000-5000 (20,000 ohms/volt). AC volts: 0-3-10-50-250-1000-5000 (5000 ohms/volt). dB: −20 to +75 in 7 ranges. DC current: 0-100 uA (250 mV); 0-10-100-1000 mA (250 mV); 0-10 amps (250 mV). Ohms: 0-1000-10,000 (4.4-44 at center scale); 0-1-100 megs (4400-440k at center scale). Output volts: 0-3-10-50-250-1000 (5000 ohms/volt). 7½ x 5½ x 3 11/32". With test leads, batteries. Shpg. wt. 5 lbs.
956-5653 ... Ea. 146.13 4-Up ... Ea. 125.00

630-PL TYPE 2 VOM. Has polarity reversing switch. Frequency response to 500 kHz. Sensitivity: 20,000 ohms/volt DC; 5000 ohms/volt AC. Accuracy: ±2% DC and ±3% AC. DC volts: 0-2.5-10-50-250-1000-5000 at 20,000 ohms/volt; 0-0.25 at 100 μA. AC volts: 0-3-10-50-250-1000-5000 at 5000 ohms/volt. DC current: 0-100 μA; 0-10-100-1000 mA; 0-10 amps. Resistance: 0-1k-10k, plus 0-1-100 megs. dB: −20 to +75 in 6 ranges. Output volts: 0-3-10-50-250-1000 at 5000 ohms/volt. 7½x5½x3 1/32". With leads, alligator clips, rubber feet, batteries, instructions. Shpg. wt. 5 lbs.
956-5651 .... Ea. 94.69 4-Up 81.00

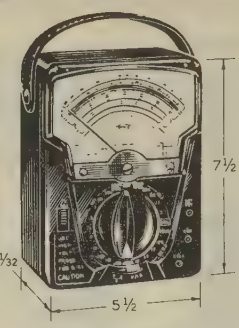


MODEL 630NA VOM

- **Single Selector Switch**
- **70 Ranges • 1½% DC Accuracy**
- **Handy Mirror Scale and Diode Overload Protection**

Single selector switch reduces chances of error in setting. Temperature and frequency compensation, usable with frequencies through 500 kHz. 5½" easy-to-read mirror scale with unbreakable window. Special diode protected meter, and fuse protection in ohmmeter circuit prevents overloading and burnouts. Rugged new suspension meter movement.

Accuracy: ±1½% DC, ±3% AC. Ranges: DC volts: 7 ranges to 6000 (10k per volt); 7 ranges to 3000 (20k/volt); 1 range to 0.1260 μA). (AC volts: 6 ranges to 6000 (5000 ohms/volt); 6 ranges to 3000 10k per volt). dB, −20 to +77 in 12 ranges. DC μamps, 1 range to 120 (240 mV); 2 ranges to 600 (120 mV). DC mA:4 ranges to 1200 (240 mV); 3 ranges to 600 (120 mV). DC amps, 1 range to 12 (240 mV); 1 range to 6 (120 mV). Ohms, 3 ranges to 100k, 3 ranges to 100 megs. Leads, clips, batteries. 5 lbs.
956-5645 ... Ea. 130.93 4-Up ... Ea. 112.00

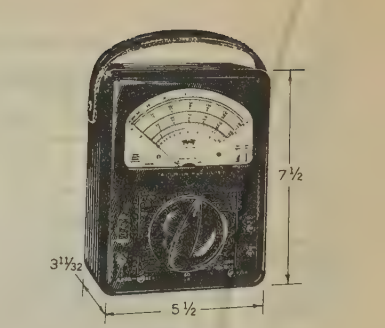


MODEL 630NS VOM

- **200,000 Ohms/Volt DC Sensitivity**
- **Rugged Construction with High Sensitivity and Repeatability**
- **No Rolling Friction in Movement**

Suspension meter movement has no pivots, bearings, hairsprings, etc. Extremely rugged. Special precision resistors are rigidly mounted. 20,000 ohms per volt for greater sensitivity on high resistance circuits. Input impedance is higher than on most VTVM's at 55 volts, DC and above. Accuracy is ±1½% DC, and ±3% AC.

Temperature compensated to 100 kHz. 20,000 ohms/volt AC sensitivity. Ranges: DC volts: 0-0.6-3-12-60-300-1200 at 100k ohms/volt. 0-0.3-1.5-6-30-150-600 at 200k ohms/volt, 0-0.150 at 60 μA. AC volts; 0-3-12-60-300-1200 at 10k per volt: 0-1.5-6-30-150-600 at 20k. per volt. dB, −20 to +63 in 10 ranges. DC current: 0-5-60-120-600 μA, and 0-1.2-6-12-60-120-600-1200 mA, plus 0-6-12 amps. Ohms: 0-1000-10k-100k-1 meg-10 meg-100 meg. (4.4-44-440, etc. at center scale). Shipped complete with leads, clips, and batteries. 7½x5½x 3 1/32". 5 lbs.
956-5648 ... Ea. 156.64 4-Up ... Ea. 134.00



MODEL 630 VOM

- **Single Selector Minimizes Chance of Incorrect Settings and Burnouts**
- **5000 Ohms per Volt AC Sensitivity and 20,000 Ohms per Volt DC**

Features 20,000 DC, 5000 AC ohms/volts sensitivity. Single 20-position switch selects both circuit and range. Fuse-protected ohmmeter circuit prevents burnout. Spring-backed instrument jewels.
DC accuracy is ±2% on all ranges. AC response, 5 Hz to 50 kHz. Ranges: DC and AC volts; 0-3-12-60-300-1200-6000; DC current, 0-60 μA, 0-1.2-12-120 mA, 0-12 amps. Resistance, 0-1000-10,000 ohms and 0-1-100 megs. dB, −20 to +77 in 6 ranges; output volts, 0-3-12-60-300-1200. Jack with condenser in series with AC ranges. Sizes, 7½x5½x3/32". Supplied complete with batteries, alligator clips, and test leads. Shpg. wt., 2 lbs.
956R5656 ... Ea. 88.84 4-Up .... Ea. 76.00
MODEL 630A-2 VOM. As above, but with ½% precision multiplier resistors for ±1½% accuracy on DC readings; ±3% accuracy on AC readings. 4½" mirrored scale. With leads, clips, and batteries. Shpg. wt., 5 lbs.
956-5630 ... Ea. 104.04 4-Up .... Ea. 89.00

VOM ACCESSORIES

HV PROBE

Fully insulated 11¾" probe with 48" leads. For use with 630, 630A-2, 631.

Stock No.	Type	DC Volts	EACH 1-3	EACH 4-Up
956-3700	T79-70	0-30,000	28.64	24.50

CASES

*Black cowhide case.
†Black leather case.
Shpg. wt. 1½ lbs.

Stock No.	Mfr's Type	For Testers	EACH 1-3	EACH 4-Up
956-5662	*639-N	630 Ser.	20.22	17.30
956-5670	†669-OS	666R	14.61	12.50

TYPE 611 LEADS. For model 10 AC-Ammeter Adapter (at right) when used with 630 Series (or with any VOM having a 3 volt AC scale at 5000 ohms per volt). Long lead attachment. 10 oz.
956-0611 ..Ea. 7.87 4-Up ..Ea. 6.30

MODEL 369 LEATHER CASE

Black case for 310, 310-C and 310 FET. Trouser belt slips through loop on case. 1 lb.
956R5369 ..Ea. 10.15 4-Up ..Ea. 8.12

MODEL 379 LEATHER CASE

For 310 and Model 10 clamp-on ammeter combination. Has pocket for Model 101 line separator. Black leather, with strap. 1 lb.
956-5379 ..Ea. 12.86 4-Up ..Ea. 11.00

REPLACEMENT LEADS

TYPE 79-153. For 310 and 310-C. Shpg. wt. 10 oz.
956R3727 ..Ea. 7.87 4-Up ..Ea. 6.30
TYPE 311 LEAD. Allows separate use of Model 10 AC-Ammeter with Series 310 test equipment. 10 oz.
956-0311 ..Ea. 7.87 4-Up ..Ea. 6.30

MODEL 100 5-PIECE VOM/AC AMMETER OUTFIT

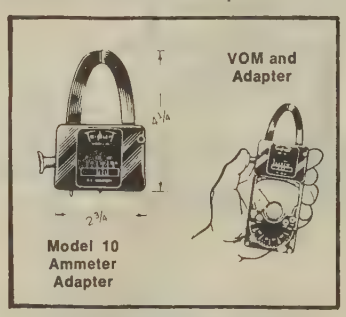
- **310 VOM • Model 10 Ammeter**
- **Line Separator, Leads, Case**

Save $13.22 on this packaged miniature VOM outfit. Cost of items purchased separately is $120.77. Outfit consists of: Model 310 pocket-size VOM; Model 10 clamp-on AC Ammeter Adapter; Model 101 Line Separator; Model 379 Leather Carrying Case; Model 311 Lead Attachment for separating VOM and Adapter. VOM has 20,000 ohms/volt AC sensitivity, 5000 ohms/volt AC sensitivity. DC voltage ranges to 1200 volts in five ranges; current to 600 mA in four ranges; ohms to 20 megs in four ranges.

Clamp-on adapter converts 310 to ammeter. Reads current in 6 steps. 101 separator increases ammeter sensitivity. Case holds 310 and 10 with pocket for 101 Line Separator. Descriptions at right. Wt. 7 lbs.
956-5101 ... Ea. 107.55 4-Up .... Ea. 92.00

MODEL 100-C OUTFIT

As above, but with Model 310-C VOM. 15,000 ohms/volt AC sensitivity, 20,000 ohms/volt DC. AC and DC voltage ranges to 600 volts. Polarity reversing switch. Includes Model 10-C clamp-on AC Ammeter Adapter; Model 101 Line Separator; Model 379 Leather Carrying Case; Model 311 Lead Attachment for separating VOM and Adapter. 7 lbs.
956-5100 ... Ea. 121.58 4-Up ... Ea. 104.00



310-C MINIATURE VOM

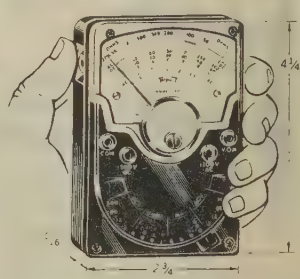
Similar to Model 310 at right, but with 600-volt ranges instead of 1200. Handsize, with provision for attaching Model 10C clamp-on AC ammeter, below. Single, fully enclosed lever-range switch plus DC polarity reversing switch. Sensitivity: 15,000 ohms/volt on AC; 20,000 ohms/volt DC. Accuracy: ±3% DC, ±4% AC. DC volts: 0-3-12-60-300-600 (20,000 ohms/volt). AC volts: 0-3-12-60-300-600 (15,000 ohms/volt). Ohms: 0-20k-200k. 0-2-20 megs. DC current: 0-600 μA; 0-6-60-600 mA. 4¼x2¾x1 5/16". With leads, battery. Wt. 2 lbs.
956-5310 .... Ea. 75.98 4-Up .... Ea. 65.00

MODEL 10 AMMETER ADAPTER

Plugs into Model 310 or 310-FET to make a clamp-on AC ammeter. Can be used with any VOM with a 3-V AC scale at 5000 ohms/volt. Checks all line loads without breaking circuit. Six AC ranges 0-6-12-30-60-120-300 amps. Clips around single wire for direct reading. 4¼x1¼x3¼". 1 lb.
956R5011 ... Ea. 28.06 4-Up .... Ea. 24.00
Model 10-C. As above, but for Model 310C VOM. 1 lb.
956-5010 .... Ea. 28.06 4-Up .... Ea. 24.00

MODEL 101 LINE SEPARATOR

Plugs into AC outlet to divide two-conductor cord. Increases Model 10 sensitivity 10X and 20X, 0.3 to 30 amps, AC in 9 ranges. Shpg. wt. 1 lb.
956-5102 .... Ea. 14.70 4-Up .... Ea. 10.00



310 MINIATURE VOM

Miniature VOM is self-shielded, has spring-backed jewels for ruggedness. High-torque, bar-ring movement. Test prod fits into top for use as common probe, leaving one hand free. Accuracy: ±3% DC, ±4% AC. DC volts: 0-3-12-60-300-1200 (20,000 ohms/volt). AC volts: 0-3-12-60-300-1200 (5000 ohms/volt). Ohms: 0-20,000-200,000; 0-2-20 megs. DC current 0-600 μA; 0-6-60-600 mA. Molded black case, 4¼x2¾x1 5/16". With test leads, battery, manual. See Model 10 clamp-on AC ammeter adapter, left. Shpg. Wt. 2 lbs.
956R5312 ... Ea. 57.28 4-Up .... Ea. 49.00

MODEL 666R POCKET VOM

- **Five AC and DC Voltage Ranges**
- **Three Resistance Ranges to 3 Meg.**

Handy tester for pocket or tool kit has single recessed selector switch. AC rectifier is calibrated and pre-adjusted for easy replacement. Accuracy: ±3% DC; ±4% AC. AC/DC sensitivity: 1000 ohms per volts. Ranges: DC and AC volts: 0-10-50-250-1000-5000. DC current: 0-10-100 mA; 0.1 amp. Ohms: 0-3000-300,000, 0-3 megs. Output volts: 0-10-50-250-1000. Size: 5⅞x 3 1/16x2 9/16" With test leads, alligator clips and batteries. Shpg. wt. 3 lbs.
956-5666 .... Ea. 64.30 4-Up .... Ea. 55.00

World-Famous 260® Family of Protected VOM's

260® ORIGINAL VOM—THE INDUSTRY STANDARD

- External Access Fuse and Battery Compartment
- 0–1 VDC and 0–500 V Ranges
- Easy-to-Read 2-Color Scales
- Polarity Reversing Switch

Model 260-6. The original 260 VOM—precision made for dependable operation on the bench, or "on the go." Battery-operated portable is ideal for use wherever quick, accurate electrical checks must be made. Multi-purpose screw-on test leads have combination probe and alligator clips.

Features excellent linearity and stability. Modified full-wave bridge circuit gives accurate AC measurements. Precision movement is of shock-resistant taut-band construction for long life. Varistor-protected against meter overloads. Self-shielded movement cannot be affected by magnetic fields. Uses only two batteries—one 9-volt and one "D" cell.

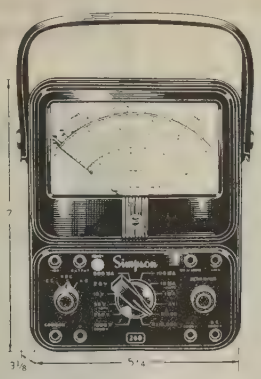
Handle also serves as a convenient stand for bench use. Takes optional "Add-A-Testers" below. With batteries, test leads, operating manual. Size, 7x5¼x3⅛". Shpg. wt. 5 lbs.

Basic Model 260-6. As described above.
919R0253 ..... Each 88.08 4-Up ..... Each 75.50

Model 260-6RT. Same features as above but with roll-top protective case.
919R0257 ..... Each 98.00 4-Up ..... Each 84.00

Model 260-6M. Same features as 260-6 but with mirrored dial to eliminate possible parallax errors in the readings.
919R0254 ..... Each 91.58 4-Up ..... Each 78.50

260-6MRT. Same features as 260-6 but with roll-top case and mirrored dial.
919R0255 ... Each 101.50 4-Up ..... Each 87.00



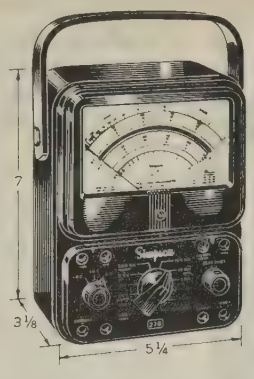
OVERLOAD PROTECTED

- Circuit Breaker Reset Button Pops Out to Indicate Overload
- Taut Band Meter Movement
- Polarity Reversing Switch

Model 260-6P. Highly versatile meter features overload protection that's particularly valuable where the instrument may be used by inexperienced students or operators new on the job. Reset button on built-in circuit breaker pops out indicating overload to protect circuits. Button cannot be reset while overload remains present.

All ranges are protected except those not feasible in a portable instrument—1000 volts DC and AC; 10 amp DC. Has many deluxe features including taut band meter construction, polarity reversal switch, and self-shielded meter movement. 7 x 5¼ x 3⅛". Sh. wt. 5 lbs.

919R0256 ..... Each 134.16
4-Up ..... Each 115.00



EXTRA-ACCURATE VOM

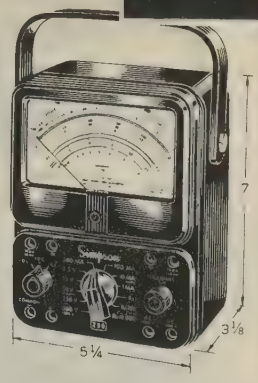
- Protected Taut-Band Movement
- Temperature Compensated
- Anti-Parallax Mirror Scale
- Special Calibration Circuit

Model 270-4. In addition to all the features and ranges of the 260-6M, this instrument includes enough more to make it the most accurate VOM in the 260 series. Accuracy is ±1.25% DC, ±2% AC, ±1.5° of arc on Rx1, ±1° of arc on Rx100 and Rx10k.

Has mirror scale and knife edge pointer. Varistor-protected against meter overloads. Polarity reversing switch. With batteries, leads, manual. 7x5¼x3⅛". Shpg. wt. 5 lbs.

919R0270 ..... Each 110.83
4-Up ..... Each 95.00

Model 270-4RT. As above but with roll top protective case.
919-0271 ..... Each 120.75
4-Up ..... Each 103.50

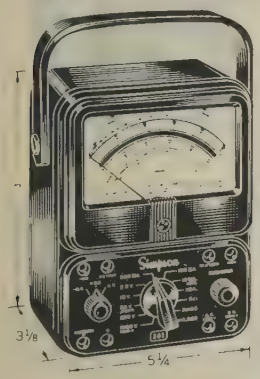


FOR SOLID-STATE USE

- Low Loading on Current Ranges
- Special 0–50 mV DC Range
- Precision Taut-Band Movement
- Self-Shielded Meter

Model 250. Precision instrument is designed for testing solid-state circuitry and other low-voltage, low-current applications. Compact and rugged; provides quick and accurate electrical checks. Voltage drop on current ranges is just 50 mV; gives less circuit loading for testing conditions closer to actual operating conditions.

Has 0–50 DC millivolts range offering the low-voltage accuracy required on today's complex solid-state equipment. Self-shielded taut band movement is varistor-protected to 200,000% overload. Complete with batteries, test leads, operator's manual. 7x5¼x3⅛". Shpg. wt. 4 lbs.
919-0250 ..... Each 94.50
4-Up ..... Each 81.00



MODEL 261-2 HIGH ACCURACY VOM

- Special Calibration Circuit
- Easy-to-Read Mirror Scale

Features special calibration circuit for maintaining increased accuracy. Easy-to-read mirror scale and knife-edge pointer effectively end errors caused by parallax. Accuracy is ±1.5% on DC, ±3% on AC, ±2° of arc on Rx1, ±1.5° of arc on Rx100 and Rx10k ohms.

Self-shielded annular movement is varistor-protected to withstand 200,000% overload. Carrying handle doubles as a convenient stand. Precision movement is of shock-resistant taut band construction for longer life. Supplied complete with batteries, test leads, and operator's manual. 7x5¼x3⅛". Shpg. wt. 5 lbs.
919-0260 .... Each 99.91 4-Up ..... Each 85.50

MODEL 261-2RT WITH CASE

As above but with roll top protective case.
919-0261 ... Each 109.66 4-Up ..... Each 94.00

SPECIFICATIONS FOR 260 FAMILY VOM's

RANGES	Model 250	Model 255	Models 260-6	Model 270	Model 261-2
DC Volts	0-.05, 0-.25, 0-2.5, 0-10, 0-50, 0-250, 0-500, 0-1000	0-.05, 0-.25, 0-1, 0-2.5, 0-10, 0-50, 0-250, 0-1000	0.25, 0-1, 0-2.5, 0-10, 0-50, 0-250, 0-500 0-1000		0-.25, 0-2.5, 0-10, 0-50, 0-250 0-1000, 0-5000
AC Volts	0-2.5, 0-10, 0-50, 0-250, 0-500, 0-1000	0-2.5, 0-10, 0-50, 0-250, 0-1000	0-2.5, 0-10, 0-50 0-250, 0-500 0-1000		0-2.5, 0-10, 0-50, 0-250, 0-1000, 0-5000
DC Microamps	0-50 (both 50 and 250 mV drop)		0-50 (250 mV drop)		
DC Milliamps	0-1, 0-10, 0-100, 0-500 (50 mV drop)		0-1, 0-10, 0-100, 0-500		
DC Amperes	0-10 (50 mV drop)	None	0-10, (250 mV drop)		
AC Amperes	None		Up to 250 AC amps with optional Amp-Clamp Adapter		
Decibels (1 mW-600 ohms)	−20 to −10, −8 to −22, −6 to −36 −20 to −50	None	−20 to −10, −8 to −22, −6 to −36, −20 to −50		
Output Rngs.	None	None	Oil uF capacitor in series w/all AC voltage rngs. thru 250 v		
Resistance	RX1, 0-2000 ohms (12 ohms center)		Rx 100, 0-200k ohms (1200 ohms center) Rx10k, 0-20 megs (120k ohms center)		
Temperature	None	+100°F to +1050°F		None	
Accuracies					
0-50 mV, 0-250 mV 0-1 to 0-1000 VDC	±2% F.S.	±2% F.S.	±2% F.S.	±1.25% F.S.	±1.5% F.S.
0-5000 VDC	—	—	—	—	±2.5% F.S
0-50 Microamps	±1% F.S.	±1% F.S.	±1.5% F.S.	±.75% F.S.	±1.0% F.S.
0-1 mA to 0-10 A DC	±2% F.S.	±2% F.S.	±2% F.S.	±1.25% F.S	±1.5% F.S.
R x 1 R x 100, R x 10k	±2.5° of arc ±2.0° of arc	±2.5° of arc ±2.0° of arc	±2.5° of arc ±2.0° of arc	±1.5° of arc ±1.0° of arc	±2.0° of arc ±1.5° of arc
0-2.5 to 1000 VAC	±3% F.S.	±3% F.S.	±3% F.S.	±2% F.S.	±3% F.S
0-5000 VAC	—	—	—	—	±4% F.S.
Movement Type	Taut Band Self Shielding Annular				
Scale Length	4.2 Inches				

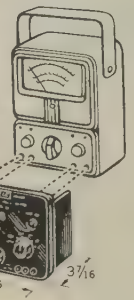
ACCESSORIES FOR 260 SERIES VOM'S

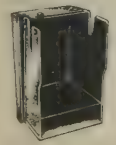
VERSATILE PLUG-IN "ADD-A-TESTER" ADAPTERS

Eliminates the need for separate testers. Simply plug into any VOM on this page. (Except those with roll top cases .)
4⅜x5 1/16x3 7/16. Av. wt. 2 lbs.

919R0650. 650 Transistor Tester. Ico range, 0-100 uA ..... **Ea. 57.87**
4-Up ..... Ea. 49.50

919R0653. 653 Ammeter. 0.25 to 25A; 50 Hz-3kHz ..... **Ea. 40.92**
4-Up ..... Ea. 35.00





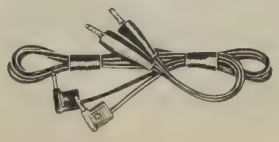
0805

1818

CARRYING CASES

Fit any VOM on this page. Shpg. wt. 2 lbs.
919R0805. Type 00805. Vinyl ..... **Ea. 23.91 4-Up ..... Ea. 20.50**
919R1818. Type 01818. Leather .... **Ea. 19.55 4-Up ..... Ea. 16.75**

Type 00549. Vinyl, with space for tools, leads or accessories.
919R0549 ..... Ea. 27.13 4-Up ..... Ea. 23.25

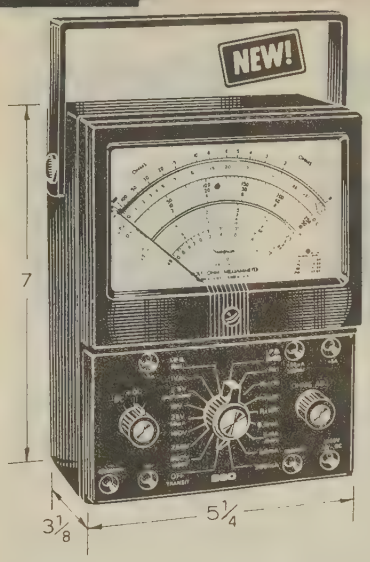


TEST LEADS AND PROBES

Use with any VOM shown on this page.
919R0115. Type 00115. Combination probe tip leads with removable clips. Shpg. wt. 1 lb. ..... **Ea. 8.95 4-Up ..... Ea. 6.92**
919R7500. Type 07500. Banana plugs, alligator clip leads, color-coded pair. Shpg. wt. 1 lb. ..... **Ea. 6.98 4-Up ..... Ea. 5.46**
919-0509. Type 00509. 30 kV DC probe. Wt. ½ lb. ..... **Ea. 25.67**
4-Up ..... Ea. 22.00

15

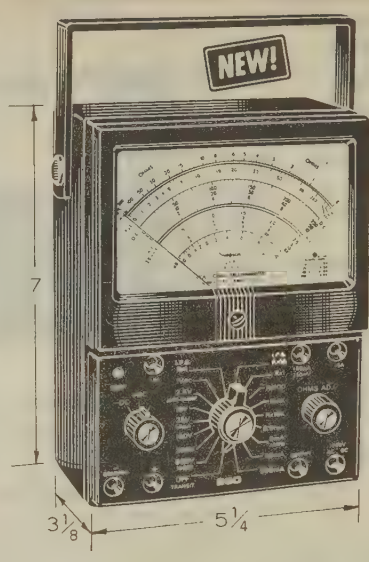
VOM's, Temperature Tester, Amp-Clamp



INDUSTRIAL VOM WITH MOST WANTED FEATURES

MODEL 260-6XL has many extra ranges and features you'll like. Low-power ohms capabilities and extra shock and drop resistant construction. High impact, custom-molded panel and case. 33 ranges with extra voltage, current, resistance and low power ohms functions. Even an extra large viewing area with color-keyed scales. Batteries are supplied. Rugged taut band movement, varistor protected. External access battery and fuse compartment. Clip type fuse holder and extra fuse. **Ranges: DC Volts** are 0-0.250; 0-1; 0-2.5; 0-10; 0-25; 0-100; 0-250; 0-500; 0-1000. **AC Volts** are 0-2.5; 0-10; 0-25; 0-100; 0-250; 0-500; 0-1000. **DC Microamperes:** 0-50 (250 MV Drop). **DC Milliamperes:** 0-0.5; 0-5; 0-50; 0-500. **DC Amperes:** 0-5 (250 MV Drop). **AC Amperes:** 6 ranges from 0-5 to 0-250 with optional Model 150 Amp-Clamp adapter. **DB Scale** (1 MW 600 Ω Reference): −20 to +10, −9 to +21; −1 to +29; +11 to +41; +19 to +49. **Resistance (Standard Power):** Rx1, Rx100, Rx1K, Rx10K. **Resistance (Low Power):** Rx1, Rx10. Max. open circuit voltage only 100 mV! **Max. measuring power** only 0.125 mW.

919-0231, w/batteries, test leads and manual ..... **Each 105.00** **4-Up 90.00**
919-0233. Type 260-6XLM, same, with mirror scale ..... **Each 108.50** **4-Up 93.00**



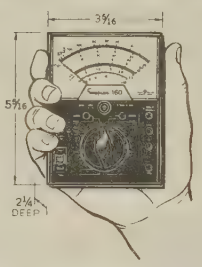
INDUSTRIAL VOM WITH CIRCUIT OVER-LOAD PROTECTION

MODEL 260-6XLP Reset pushbutton releases when over-load exists. Will not reset until overload condition is eliminated. Low-power ohms capabilities and extra shock and drop resistant construction. High impact, custom-molded panel and case. 33 ranges with extra voltage, current, resistance and low-power ohms functions. Even an extra large viewing area with color-keyed scales. Batteries are supplied. Taut band movement, varistor protected. **Ranges: DC Volts** are 0-0.250; 0-1; 0-2.5; 0-10; 0-25; 0-100; 0-250; 0-500; 0-1000. **AC Volts** are 0-2.5; 0-10; 0-25; 0-100; 0-250; 0-500; 0-1000. **DC Microamperes:** 0-50 (250 MV Drop). **DC Milliamperes:** 0-0.5; 0-5; 0-50; 0-500. **DC Amperes:** 0-5 (250 MV Drop). **AC Amperes:** 6 ranges from 0-5 to 0-250 with optional Model 150 Amp-Clamp adapter. **DB Scale** (1 MW 600 Ω Reference): −20 to +10; −9 to +21; −1 to +29; +11 to +41; +19 to +49. **Resistance (Standard Power):** Rx1, Rx100, Rx1K, Rx10K. **Resistance (Low Power):** Rx1, Rx10. Max. open circuit voltage only 100mV! Max. measuring power only 0.125 mW!

919-0237, w/batteries, test leads, and manual ..... **Each 145.00** **4-Up 125.00**
919-0235. Type 260-6XLPM, same, with mirror scale ..... **Each 149.33** **4-Up 128.00**

POCKET-SIZE HANDI-VOM

- **1-Volt Plug-in Jack for Easy Transistor Measurements**
- **Recessed Switch**
- **Self-Shielded Taut-Band Movement**



Model 160. Self-shielded taut-band movement is varistor protected, features high repeatability. 1-volt jack for easy transistor measurements. Recessed range selector switch; separate battery compartment. 250 mV drop at 50 μA. RANGES: Voltage: 0-0.25-1.0-2.5-10-50-250-500-1000 VDC at 20,000 ohms per volt sensitivity; 0-2.5-10-50-250-500-1000 VAC at 5000 ohms per volt. Current: 0-50 μA, 0-1-10-100-250-500 mA. Resistance: 1, 10, 100, 1k, 10k, (30 ohms center scale). Accuracy: AC, ±3% of full scale; DC, ±2% of full scale. Size: 2¼x3⅜x5⅝". With leads, batteries, manual. Wt. 6 lbs.

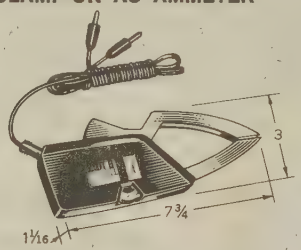
919-0160. 1-3 ..... **Ea. 75.83** **4-Up** ..... **Ea. 65.00**

Type 2055 Probe-Tip Leads. Shpg. wt 1 lb.
919-2055. 1-3 ..... **Ea. 7.00** **4-Up** ..... **Ea. 5.20**

Type 2929 Plastic Carrying Case. Has space for VOM, test leads, probes. Shpg. wt. 2 lbs.
919-2929. 1-3 ..... **Ea. 17.80** **4-Up** ..... **Ea. 15.25**

Type 2225 Leather Carrying Case. Has space for VOM, test leads, probes. Shpg. wt. 2 lbs.
919-2225. 1-3 ..... **Ea. 14.88** **4-Up** ..... **Ea. 12.75**

MODEL 150 AMP-CLAMP CLAMP-ON AC AMMETER



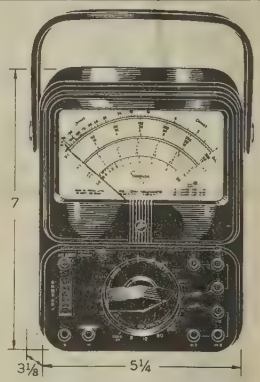
- **Measures AC Current Up To 300 Amps**
- **Attaches Easily to Most VOM's**
- **Voltage-Limiting Protects Meter Movement**

Permits measuring AC currents up to 300 amps without opening the circuit. Simply clamp the unit onto the wire carrying the current to be tested. Increases the range and versatility of any VOM having a 2.5 or 3-volt scale. Offers AC current measurement in six ranges—5, 10, 25, 100 and 250 amps on a 2.5-volt scale; 6, 12, 30, 60, 120, 220, 300 A on a 3.0-volt scale. Using a VOM with 5,000 ohms per volt sensitivity, accuracy is ±3%.

Has voltage-limiting zener diodes across output. Thumbwheel selector switch. Conversion chart in handle. Rugged high impact plastic case. Complete with 4-ft. meter leads and test plugs. Size, 7¾x3x 1⅛". Shpg. wt. 1 lb.
919R0150. 1-3 ..... **Ea. 35.07** **4-Up** ..... **Ea. 30.00**

MODEL 265 INDUSTRIAL TYPE VOM

- **AC and DC Current Ranges to 12 Amps**
- **Varistor Overload Protected**
- **Single Switch Operation**



Rugged, self-shielding taut-band movement is temperature compensated. Separate, isolated AC current ranges let you set up simultaneous AV voltage and current measurement using two pairs of leads; simply select the AC Amps and AC Volts position alternately. Adjust-A-Vue handle doubles as a convenient stand. RANGES: DC volts, 0-0.3-3-12-60-300-600 with 20,000 ohms/volt sensitivity, ±2% F.S. accuracy; AC volts, 0-3-12-60-300-600 with 5000 ohms/volt sensitivity, ±3% accuracy; DC current, 0-60μA, 0-1.2-2-12-120 mA, 0-0.6-1.2-12 A with 250 mV max. voltage drop, ±2% accuracy; AC current, 0-120 mA, 0-1.2-12 A with ±3% accuracy; resistance, R x 1, R x 100, R x 1k and R x 10k with 12 ohm center. With test leads, batteries, manual. Size, 7x5¼x3⅛". Wt. 5 lbs.
919-0265. 1-3 ..... **Ea. 140.00** **4-Up** ..... **Ea. 120.00**

VOM AND TEMPERATURE TESTER

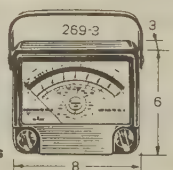
- **Range from 100° to 1050°F**
- **Full VOM Features**

Model 255. Combination tester offers all the fine features of a VOM, plus the convenience of a temperature meter. Has thermocouple lead to measure temperatures between 100° and 1050°F. Also has 0-50 mV DC range and a low (50 mV) drop on current to aid in solid state testing and other high sensitivity applications.

Has other VOM features, but does not have decibel scale and 0-10 amp AC current range. Varistor-protected self-shielded, taut-band movement. Modified full-wave bridge rectifier circuit, easy-to-read two-color scales, convenient handle/stand. Comes complete with batteries, test leads, prods, 5-ft. thermocouple lead, and operator's manual. Size, 7x5¼x3⅛" Shpg. wt. 4 lbs.

919-0251. 1-3 ..... **Ea. 111.06** **4-Up** ..... **Ea. 95.00**

7" SCALE MICROAMMETER VOM

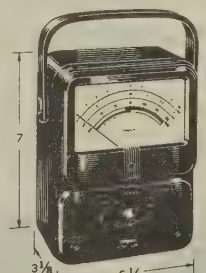


- **7" Mirror Scale Reduces Parallax Errors**

Model 269-3. Sensitivity of 100k oms/volt AC. Shielded taut-band movement. Snap-out battery compartment. One switch selects all ranges. Fused input. Offers 33 ranges: DC current, 0-16-160 μA, 0-1.6-16-160 mA, 0-1.6-8 A; DC volts, 0-1.6-8-40-160-400-800-1600-4000; AC volts, 0-3-8-40-160-400-800; ohms, 0-2-200-20k-200k-2 meg-20 meg-200 meg; AF volts, 0-3-8-40-160; decibles (1mW—600 ohms), −12 to +45.5 in 4 ranges. DC accuracy, ±2%; AC, ±3% full scale. Size, 6x8x3". With leads, 4000 VDC probe, batts. Shpg. wt. 6 lbs.
919-0264. 1-3 ... **Ea. 145.83** **4-Up** ... **Ea. 125.00**

Model 5262 Vinyl Carrying Case. "Ever-Redy" protective case for 7" scale VOM's only. Shpg. wt. 2 lbs.
919-5262 ..... **Ea. 21.00** **4-Up** ..... **Ea. 18.00**

AC CURRENT LEAKAGE TESTER



MODEL 229. For industry, field service, lab or production. Designed to test 120 VAC appliances and electrical equipment in accordance with proposed U.S. Standards Committee specification (C101.1) for AC current leakage. Measures amount of AC leakage current between equipment and ground. Full overload protection up to 150 VAC on all ranges.

SPECIFICATIONS. Ranges: AC Current, 0-0.3-1-3-10 mA. AC Voltage, 0-150 volts. Accuracy: ±2% at 60 Hz. Resolution: 5 μA on 0-0.3 mA range. Input Resistance: 500k on voltage range. Short Test (pointer red, possible short; pointer green, measurable leakage current). Comes complete with test leads, batteries and operator's manual.

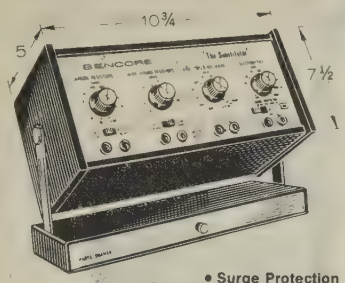
919-0229 ..... **Each 116.82**
4-Up ..... **Each 99.50**

Resistance/Capacitance Test Equipment

DELUXE R-C SUBSTITUTION BOX

Model RC167. Surge protection switch included with warning light to indicate electrolytic overload. Includes 24 overlapping resistors with values from 10 ohms to 5.5 megohms. 1 watt up to 10K, ½ watt over 10K. 10 overlapping capacitors from 100 pF to 0.5 mfd at 600 volts. Electrolytics: 2, 5, 10, 20, 50, 100 and 200 mfd at 450 volts. 500, 1000, and 2000 mfd at 75 volts. Universal selenium and silicon rectifier substitutes, 1 amp forward; 800 PIV. Gimbal mount. 7½x11½x5". Wt. 7 lbs.

941-0167 ..... Each 99.00
4-Up ..... Each 89.10



- Surge Protection Switch
- Easy to Use, Economical

RESISTOR DECADE BOXES

MODEL 240-C BENCH TYPE. Allows selection of any value from 1 to 999,999 ohms in one-ohm increments. Six dials read Rx1, Rx10, Rx100, Rx1K, Rx10K, Rx100K for quick setting and quick readout. Dissipates up to 225 W; max VDC 1000, or 660 VAC per decade. 2% tol. except Rx1 decade, 5% Max. current rating range from 5 A for Rx1 to 5 A for Rx 100K. Rugged, long-lasting wirewound power resistors used throughout. Two sets of terminals accept any of the following: banana plugs, spade lugs or plain wire connections. 8½ x 13 x 5¾". Shpg. wt. 13¼ lbs.

753-7840 ..... Each 159.50

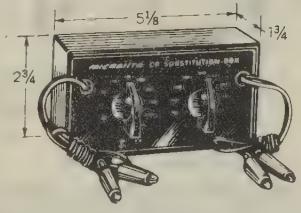
- 1 to 999,999 Ohms in One-Ohm Intervals
- Terminals Accept 3 Kinds of Connections
- Dissipates Up to 225 Watts
- Wirewound Resistors Used Throughout

MICRONTA R-C SUB BOX

- Resistance Ranges 15 Ohms To 10 Megohms
- Capacitance Ranges .0001 To .22uF in 9 Steps

MODEL 22-001. 33 switch-selected ranges. Resistance values in two ranges (12 steps each): Low, 15 to 10k ohms; High, 15k ohms to 10 megohms. Capacitance ranges: .0001, .001, .0022, .0047, .01, .002, .047, .10, .22 uF. With leads. 5⅛x2¾x1¾". Shpg. wt. 1 lb.

910-4501 ..... Each 7.95



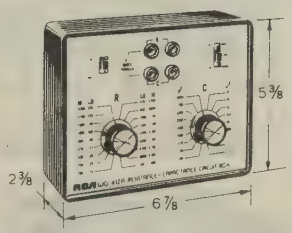
- Precision-Made
- Tough, Dependable
- Economically Priced

R-C SUB BOX

FOR COMPONENT SUBSTITUTION IN SERVICING AND CIRCUIT DESIGN APPLICATIONS

MODEL WC-412A. Provides a selection of standard resistor and capacitor values available separately, in series, or parallel R-C combinations. Unit includes 36 one-watt resistors in standard values from 15 ohms to 10 megs., plus 18-600V capacitors ranging from 100pF to 0.22uF. Both resistors and capacitors have 10% tolerance. Two rotary switches select values Alligator-clip leads. Use for component substitution in servicing and circuit design applications. Shipping weight 1¾ lbs.

901-2415 .... Ea. 39.95 4-Up .... Ea. 35.95

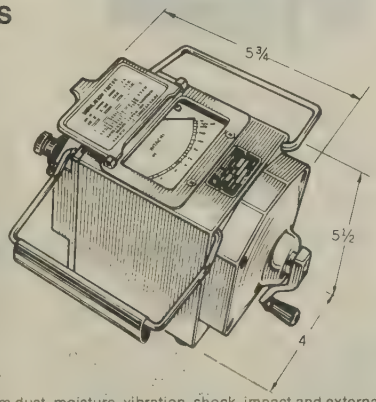


- Two Rotary Switches Select Values
- 36 Resistors From 15 Ohms to 10 Megs
- 18 Capacitors From 100 pF to .22uF

INSULATION TESTERS

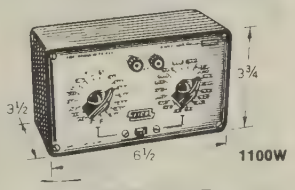
- Models with Voltages to 2500, Megohms to 10,000
- Construction Meets JISC-1301
- For Bench and Field

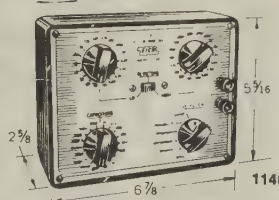
TYPE E17. Measure insulation resistance accurately and easily. Quickly locates intermittent shorts, bad electrical connections, insulation breakdowns, conductor failures, due to wear, moisture, corrosion, etc. Insulation resistance is hand calibrated directly in megohms. Readout of insulation leakage from 5 ohms to 10,000 megohms. Cross-coil ohmmeter provides accurate readings. Automatic compensation for voltage and current variations. DC voltage outputs from 100 VDC to 2500 VDC. Rigid construction conforms with JISC-1301. Made of light alloy castings and special seals, protecting it from dust, moisture, vibration, shock, impact and external magnetic fields. Shpg. wt. 6 lbs



Stock No.	Mfr's Type	Voltage	Resistance	EACH 1-3	EACH 4-Up
808-0507	E-17-07	500V	1000 Megs	297.91	275.00
808-0512	E-17-12	2500V	10,000 Megs	541.66	500.00
808-0515	E-17-17	Leather Carrying Case 12-ft. Connector Leads		43.50	39.95

RESISTOR AND CAPACITOR SUB BOXES



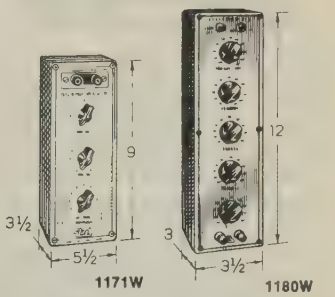


MODEL 1100W RESISTOR SUB BOX. Multiples of 15, 22, 23, 47, 68, 100 ohms. Overall range, 15 ohms to 10 megs. Duty rating 500 volts. 5-way binding posts. Less leads. 3¾x6½x3½". 2 lbs.

775-1101 .. Ea. 26.84 4-Up .. Ea. 22.95

MODEL 1140W R-C SUB BOX. 1100W, 1120W with switching facilities for resistance, capacitance or combination in series or parallel. Multiples of 15, 22, 33, 47, 68, 100 ohms, 15 ohms to 10 megs. Capacitance, .0001 to .22 μF, 18 steps. Open, short-circuit positions. No leads. 5⁵⁄₁₆x6⅞x2⁵⁄₁₆". 3 lbs.

775R1140 . Ea. 40.86 4-Up .. Ea. 34.95



MODEL 1171W RESISTANCE DECADE BOX. Resistance: 0-99, 999 ohms in 1-ohm steps with 5 decades. ½% accuracy; 1-watt resistors. Comparator position and binding posts for instant substitution of resistance values into test circuit. Current: 350 mA (0-9 ohms) to 2.5 mA (10k-100k). 12x3½x3". No leads. 3 lbs.

775R1171 . Ea. 58.40 4-Up .. Ea. 49.95

MODEL 1180W CAPACITANCE DECADE BOX. Range: 100 pF to 0.111 μF in 100 pF steps. Rated 350 WVDC continuous, 500 WVDC intermittent. Silver-mica capacitors with ±1% accuracy. 7 pF zero capacitance. Ceramic wafer switches; low-loss lucite terminal board; 5-way jack-type binding posts. 9x3½x5½". Less leads. 3 lbs.

775R1180 . Ea. 46.71 4-Up .. Ea. 39.95

CAPACITOR SUB BOX

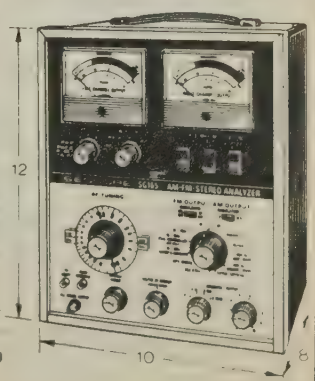
MODEL 1120W. Precision crafted Capacitor Substitution Box offers fast, easy and accurate substitution of any one of eighteen values. Values range from 0.0001 to 0.22 μF. An ideal low-priced, yet professional, unit for the serviceman, the experimenter or the hobbyist. Useful in checking for open capacitors and in determining values needed for optimum performance in equipment. Capacitors used are mica and molded plastic rated at 400 and 600 WVDC. Accuracy, ±10%. Convenient 5-way binding post for all popular styles of lead terminals. Size, 3¾x6½x3½". Leads are not included. Shpg. wt. 2 lbs.

775-1120 ..... Each 23.32 4-Up ..... Each 19.95

AM-FM STEREO ANALYZER PROVIDES ALL 12 SIGNALS NEEDED FOR SERVICING

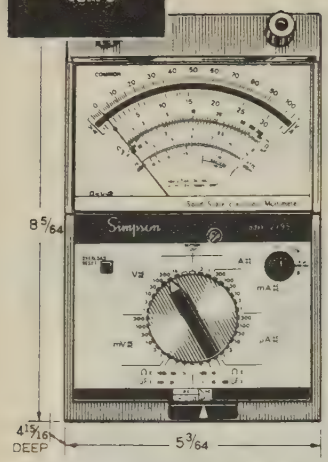
Model SG165. Complete RF generator, covers full range of AM and FM RF frequencies for front-end troubleshooting and alignment. Complete IF Generator, crystal controlled 10.7 KHz and 262 KHz for AM servicing. IF Rocker for fixed tuned sets. FM IF Sweep and Marker Generator, crystal controlled markers post injected. Two cables. Stereo Generator, MPX output on both RF and IF, composite output without carrier. Front panel control over 19 KHz pilot, right and left channel signals. High level IHF output. Audio Generator, 400 Hz sine and square wave outputs. Speaker substitute and separation readout, dummy loads provided. Separation meters tell performance of MPX decoder. Power output monitor. Lead storage compartment. Size; 12x10x8". 16 lbs.

941-0165 ... Each 595.00 4-Up ... Each 535.00



15

Professional-Quality FET VOM's

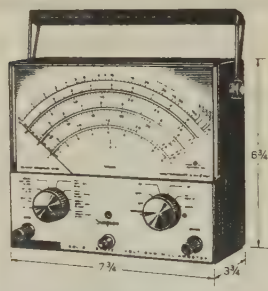


68-RANGE FET VOM WITH LABORATORY ACCURACY

MODEL 2795. Ultra-precision FET VOM features 68 switch-selected ranges, plus complete overload protection. 10-megohm input impedance on all AC and DC ranges above 10 volts; reduces circuit loading for highly accurate voltage measurements in high-resistance circuits. Taut-band meter with mirrored scale. 1% accuracy on both AC and DC scales.

Ranges: AC-DC Voltages: 0-1-3-10-30-100-300 mV, 0-1-3-10-30-100-300-1000 volts; AC-DC Current: 0-1-3-10-30-100-300μA, 0-1-3-10-30 ma, 0-0.1-0.3-1-3-amps; Resistance: Rx1 (10 ohms at center scale), Rx10, Rx100, Rx1000, Rx10,000, Rx100,000; Capacitance: (mid-scale values) 100, 10, 0 μF; 100, 10, 1 nF; Temperature: 18°C from ambient, 180°C from ambient (IC thermocouple-type input) Requires only 1mV for full-scale deflection on voltage ranges; only 1 μA for full-scale deflection on current ranges. 8¾x5¾x4¹⁵⁄₁₆". Battery operated. With batteries, test leads, manual. Shpg. wt. 4¼ lbs.

919-2795 ... Ea. 343.75 4-Up ... Ea. 275.00



FEATURE-PACKED FET VOM IDEAL FOR SERVICE MEN

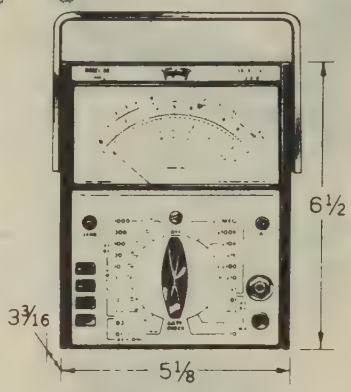
MODEL 313. Battery-portable FET VOM Ideal for servicemen, technicians, engineers. Gives FET accuracy and low circuit loading for voltage measurements in high-resistance circuits. Has large 7" meter with easy-to-read scale that reduces reading errors. Multi-position range and function-selector knobs reduce setup error. Other controls include zero adjust, ohms adjust, and on-off indicator.

Input impedance is an excellent 11 megohms on DC, with 1 megohm contained in probe; 10 megohms on AC. Has 8 DC voltage ranges, 0.3 through 1000 full scale; 8 AC voltage ranges, 0.3 through 1000 full scale; 5 DC current ranges, 0.1 mA through 1 amp full scale; 7 resistance ranges, 0 through 20 megohms full scale. Accuracy: DC, ±3% of full-scale on all ranges; AC ±3% of full scale on all ranges at 100 Hz. Temperature accuracy: 25°C ±10°C for zero shift of 1° of arc. Overall frequency response: ±0.5 dB from 20 Hz to 20 kHz for 10, 30, and 100 volt ranges.

Operates from one 9-volt battery—life expectancy is approximately 300 hours. Mechanical power on-off indicator. Battery check position on function switch. Resistance ranges are protected against overload—field-effect transistors will not be damaged should line voltage be accidentally applied. 6¾x7¾x3¾". With batteries, probe, manual. Shpg. wt. 5 lbs.

919-0313 ... Ea. 180.83 4-Up ... Ea. 155.00

Alec Electron Says – He Who Depends on Allied Is a Wise Electronics Buff



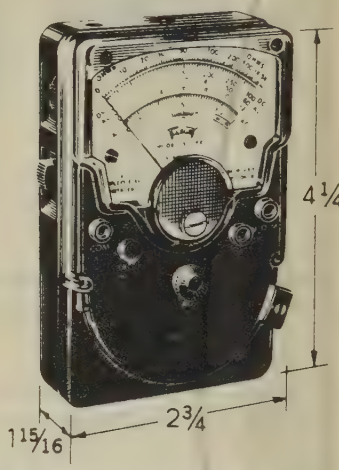
MODEL 601 SOLID-STATE VOM

- 52 Ranges
- 5" Scale

TYPE 1. Combines the accuracy of a VTVM with the portability of a VOM. Accuracy is ±2% on DC ranges and ±3% on AC ranges. Frequency response on AC is 50-50,000 kHz. Rotary Switch selects any of 52 ranges. Color-coded 5" scale.

Ranges: DC Volts: 0-0.1-0.3-1-3-10-30-100-300-1000. AC Volts: 0-0.01-0.03-0.1-0.3-1-3-10-30-100-300-1000. Ohms: 0-1-10-100-1000-10k-100k; 0-1 megohms, 10 ohms center scale. AC and DC Current: 0-10-100-1000-10,000 uA. Decibels: −40 to +60 dB. 3⅜x5⅛x6½". With carrying handle/stand. Batteries and pencil-thin probe included. Shpg. wt. 5 lbs.

956-0601 ... Ea. 239.64 4-Up ... Ea. 205.00



FET SOLID-STATE VOM

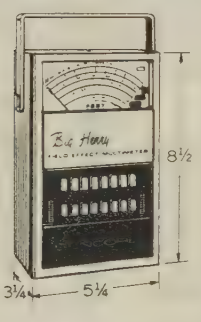
- Overload Protected Meter

MODEL 310. Reads resistance up to 1 megohm and AC or DC volts up to 600. Input impedance is 10 megohms on DC. Handles 300 mV DC full-scale transistor measurements. Diode overload protection.

Ranges: DC Volts: 0.3-1.2-6-30-120-600. AC Volts: 0-3-12-60-300-600 at 5000 ohms/volt. Resistance: 1-100-10k-1 megohm with 50-ohm center scale. DC mA: 0.12-1.2. Accuracy: DC, ±3% of full scale; AC, ±4% of full scale. Size: 4¼x2³⁄₄x1¹⁵⁄₁₆". With leads and alligator clips, batteries. Ship. wt. 2 lbs.

956-5311. 1-3. Ea. 102.87 4-Up .. Ea. 88.00
956-5370. Leather Case. Ea. 16.01
4-Up 13.70

MODEL FE27 PUSHBUTTON FIELD EFFECT MULTIMETER

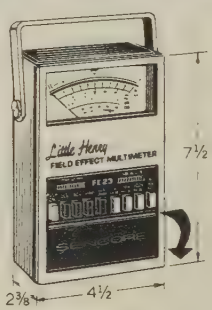


- Fail-Safe Meter Protection
- Tough Indestructible Acrylic Case

Full pushbutton selection of range and function for simplicity of operation. Illuminated meter scale. Exclusive sliding meter cover — automatic shut-off when cover is closed. Less circuit loading than VOM or VTVM with 15 megohms DC input resistance (shunted by 27 pf). Lead reversal switches. Provides 1.5% FET DC accuracy, 3% AC accuracy. 9 DC ranges: 0-0.3, 1, 3, 10, 30, 100, 300, 1000, 3000 volts full scale positive and negative. 9 zero-center ranges: −0.15 to 0.15, −0.5 to 0.5, −1.5 to 1.5, −5 to 5, −15 to 15, −50 to 50, −150 to 150, −500 to 500, −1500 to 1500 volts. 8 AC Volts: 0 to 0.3, 1, 3, 10, 30, 100, 1000 rms volts full scale. 8 peak-to-peak ranges: 0 to 0.3, 1, 3, 10, 30, 100, 300, 1000, p-p volts full scale. 5 ohms ranges: 0 to 1K, 10K, 1M, 100M, 1000M full scale. 4 DC Current Ranges: 0 to 10 mA, 100 mA, 1A, 3A, positive and negative. Power Requirements: 3 AA pen light cells and one 9 volt Eveready 222 equivalent (batteries not included). Indestructible acrylic case. Size: 8½ x 5¼ x 3¼". Wt. 4¾ lbs.

941-0027 ... Ea. 175.00 4-Up 157.50

MODEL FE23 VERSATILE FIELD EFFECT MULTIMETER

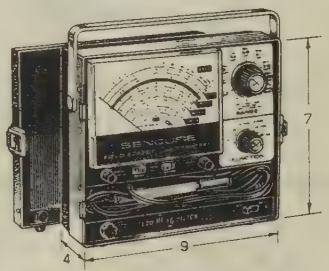


- Fully Protected With Sliding Meter Cover
- Automatic Shut-off When Lead Cover Is Closed

Fully protected inside with protected meter movement, fuse protection, and input protection to 500 times overload. It's burnout proof. Less circuit loading than VOM or VTVM with 15 megohm DC input impedance. Pushbutton selection of range and function. Illuminated meter scale for those darkened areas you often must work in. Just flip a switch whenever light is needed. Completely self-contained with built-in lead compartment. High accuracy of 1.5% DC for those precise measurements you must make. Mirrored meter scales for greatest accuracy. 5 DC Volt ranges: 0 to 3, 30, 300, 1000, 6000 volts full scale. 4 AC Volts ranges: 0 to 3, 300, and 1000 volts full scale. DC Current Ranges: 0 to 1 amp with 3% full scale accuracy. 4 Ohm Ranges: 0 to 1000, 100K, 10 Meg, 1000 Meg with 10 ohms center scale. Power Requirements: 3 AA pen light cells and one 9 volt Eveready 222 equivalent (batteries not included). Size: 4½x2⅜x7½". Shpg. wt. 2½ lbs.

941-0206 .... Ea. 99.00 4-Up 89.10

MODEL FE20 HI-LO FIELD EFFECT MULTIMETER

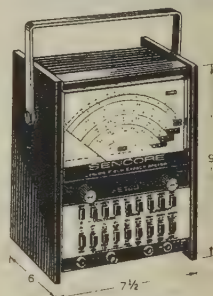


- Special Low Voltage Scale
- Zero Center Scale for Bias Voltage

Measures resistance in-circuit in solid state devices. Use the lower position to measure in-circuit resistance; operates on only .08 volt (or .008 volt if built-in isolation resistor is used) preventing semiconductors from triggering off and upsetting resistance readings. Use the higher power (1.5 volts) to measure front-to-back ratios; this voltage causes the semiconductors to conduct for proper reading of front-to-back ratio or conductivity of diodes, rectifiers or transistors. Has 6" meter. Meter protected to 1000 times overload. High Voltage Probe included. Accuracy: ±1.5% DC, ±3% AC. Input impedance: 15 megohms on DC, 12 megohms on AC. Low-voltage scale (1/10-volt) is ideal for measuring critical transistor biases. A .05-volt zero center scale is for measuring positive or negative critical bias voltages. **Ranges:** Nine DC voltage ranges from 0.1 to 1000 V. Three high voltage ranges, 3-10-30 kV (high voltage probe included). Nine DC zero center ranges, .05 to 500 V (can be extended to 15 kV). Nine AC rms ranges from 0.1 to 1000 V; p-p measurements to 2800 V. Seven resistance ranges, 1000 ohms to 1000 megohms full scale. 9x7x4". Uses "C" cells. Wt. 8 lbs.

941-2320 ... Ea. 175.00 4-Up ... Ea. 157.50

FE-160 HI-LO FIELD EFFECT MULTIMETER



- Pushbutton Operation

Deluxe multimeter is loaded with convenience features. Fast, pushbutton operation—press two buttons to make any test. Full scale sensitivity of 0.1 V, both AC and DC, for servicing solid-state circuits. Measures 30 μA to 3 amps on both AC and DC. Accuracy: ±1.5% DC, ±2.5% AC. Accurately measures high and low power resistors in-circuit. Movement and components protected to 1000 times overload. Fully calibrated zero center ranges for DC voltage and current. 7" mirrored-scale meter; 500 μA, ±2%. Employs ½% deposited carbon multiplier resistors.

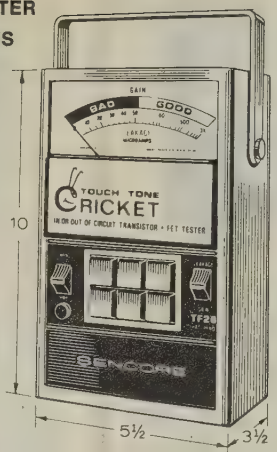
Ranges: DC Volts — 10 pos. and 10 neg., 0-.1-.3-1-3-10-30-100-300-1000-3000; 10 zero-center ranges from .05 to 1500 V. AC Volts—9 RMS ranges, 0-.1-.3-1-3-10-30-100-300-1000; 9 P-P ranges, 0-.28-.84-2.8-8.4-28-84-280-840-2800. DC Current—10 ranges from 30 μA to 3 amps full scale. AC Current—10 ranges from 30 μA to 3 amps full scale Ohms—8 hi-power ranges, 600 ohms to 6000 megohms; 7 low-power ranges, 600 ohms to 600 megohms. Decibels: −9 ranges. Response: 10 Hz to 150 kHz. Size, 9 x 7½ x 6". For 110-130 VAC, 50-60 Hz. Shpg. wt. 6 lbs.

941-0160 ... Ea. 195.00 4-Up 175.50

Transistor and IC Testers

ASSORTED TEST GEAR

MODEL TF26 TRANSISTOR/FET TESTER WITH COMPUTER LOGIC CIRCUITS

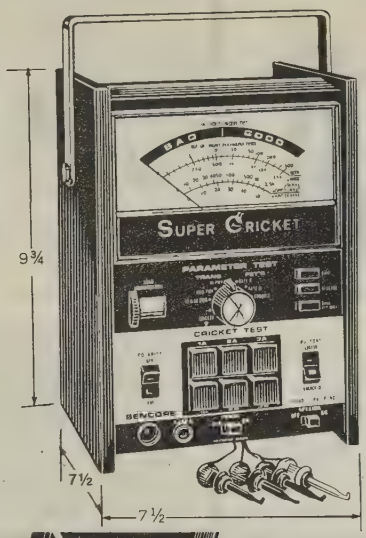


IN and OUT of circuit touch-tone transistor and FET tester. Complete in-circuit pushbutton test in one operation. Saves a lot of time over other testers with every check you make. No set-up data or technical know-how needed. Gives you a "Good-Bad" readout by simply pressing buttons.

Connect the leads any way you wish! A logic circuit determines basing configurations for you, automatically; just push the buttons. Will not harm transistor circuit under test, or the tester, no matter how you connect the leads. Audible "chirp" calls out good transistors and tells you to read the meter. Checks NPN and PNP transistors and N-channel and P-channel FETs with the same complete test.

The TF26 automatically determines polarity for you, too. There is a sensitive out-of-circuit test, in microamps, to back you up. Features a lead storage compartment and sliding meter cover. Unbreakable acrylic enclosure. Size: 10x5½x5½". Shpg. wt. 4 lbs.

941-0026. 1-3 ..... **Each 150.00**
4-Up ..... **Each 135.00**



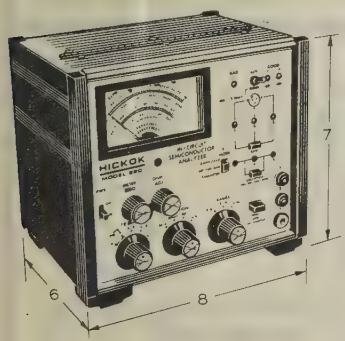
NEW!

SUPER CRICKET

MODEL TF30 DYNAMIC TRANSISTOR/FET ANALYZER

Now you can go ALL THE WAY, automatically, and completely analyze any transistor or FET—in seconds! First, the TF30 is a proven "Cricket" for fast in-circuit work without set-up data. Just connect the leads in any order and push the 6 buttons for the "Good-Bad" Cricket test—it "chirps" to tell you a transistor is good. Second, it's a parameter tester for transistor and FET analyzing. Rotate the function knob, and push, for a true AC gain test or a DC leakage test. This includes Beta, I_{cbo}, Gm, I_{gss} and I_{dss} for matching transistor pairs. Third, it identifies all 3 leads for total basing info. Fourth, it will tell you if you're testing a transistor or FET. Includes a touch-test PC board probe. Wt., 7 lbs.

941-0030. 1-3 ..... **Each 240.00**
4-Up ..... **Each 216.00**



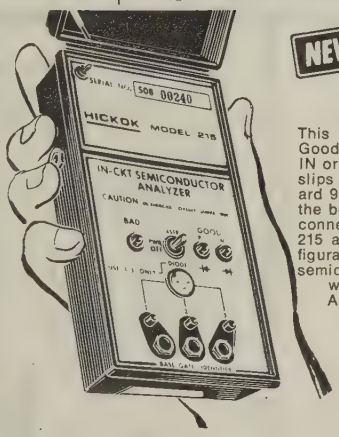
- **Fully Automatic Operation**
- **Good/Bad or Parameter Tests**
- **Test Leads Included**

NEW!

MODEL 220 IN OR OUT OF CIRCUIT SEMICONDUCTOR ANALYZER

Troubleshoot solid-state circuits without your soldering iron! It's an in-circuit measuring device that automatically nulls out the in-circuit loads and even indicates the proper leads. Does rapid tests on all types of semiconductors—IN or OUT of circuit. LED displays give Good-Bad indication and identify device leads. Parameter operation provides Beta or FET transconductance measurement on 3 meter ranges, in or out of circuit; automatic Beta and transconductance calibration for one-step operation; in-circuit resistance measurement using low voltage; leakage measurement for diodes or transistors in or out of circuit. Has storage space for test leads and line cord. Size: 7x8x6". For 120 VAC, 50-400 Hz.

699-0220. 1-3 ..... **Each 298.50**
4-Up ..... **Each 268.65**

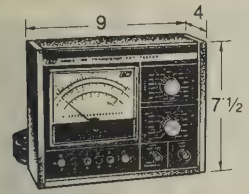


NEW!

MODEL 215 POCKET AUTOMATIC SEMICONDUCTOR TESTER

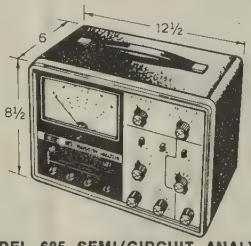
This lightweight, easy-to-use portable gives instant Good-Bad analysis of NPNs, PNPs, FETs and diodes, IN or OUT of the circuit. It weighs just 12 ounces and slips easily into or out of pocket. Operates on standard 9-volt batteries. Easy to use—no need to look in the book to find emitter, base or collector leads. Just connect leads in any order, IN or OUT of circuit. The 215 automatically and instantly determines lead configuration, and tells you, with an LED display, if the semiconductor is Good or Bad. If Good, it identifies which lead is the base and whether NPN or PNP. Also tests SCRs and "unijunctions". Solid-state design of the 215 is based on low-power CMOS circuitry that extends battery life. Will not damage components under test! Wt., 12 oz.

699-0215. 1-3 ..... **Each 138.00**
4-Up ..... **Each 124.20**



MODEL 162 TRANSISTOR/FET TESTER
Tests diodes, unijunctions, SCRs and triacs. Go/No-Go test instantly tells if device is cause of defect. Makes accurate in-circuit tests. Leakage tests: I_{CBO}, I_{CEO}, I_{CES}. In-circuit Beta test. Tests power transistors to 1 amp. Separate tests for Gate 1 and Gate 2 of dual-gate FETs. 4¾" meter. With batteries. Shpg. wt. 9 lbs.

731-0162. 1-3 ..... **Each 128.00**
4-Up ..... **Each 121.60**



MODEL 685 SEMI/CIRCUIT ANALYZER
Tests unijunction transistors, SCRs, power rectifiers, signal diodes, Zener diodes, FETs, bipolar transistors. Taut-band meter measures accurate leakage. AC Beta (in and out of circuit): 2-100, 2-1000 at I_c 20 mA for power devices. I_{CBO}, 0-5 mA (30 uA center scale). 12½x8½x6". Shpg. wt. 4 lbs.

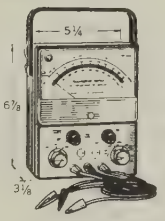
775X-0685. 1-3 ..... **Each 181.85**
4-Up ..... **Each 169.95**

ECONOMY TRANSISTOR CHECKER

- **Go/No-Go Test**
- **Current Gain Test**
- **IN and OUT Of Circuit Tests**

MODEL 22-024 GO/NO-GO UNIT
Go/No-Go test indicates open and short circuits, current gain on quick-check front panel. Tests all low, medium and high power transistors IN or OUT of circuit. Also checks diodes and PNP and NPN transistors. Complete with clip leads. 6¼x3x2½". Shpg. wt. 2 lbs.

910-4524 ..... **Each 14.95**



TRANSISTOR CHECKER

- **Tests IN or OUT of Circuit**
- **Tests High and Low Power Transistors**

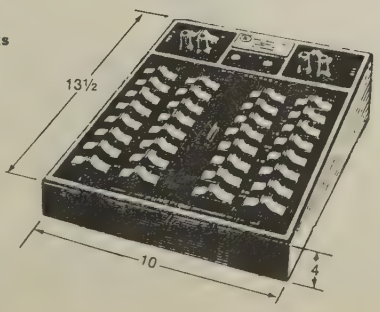
MODEL WT-501A PORTABLE TESTER
Checks DC Beta from 1 to 1000, I_{CBO} down to 2 μA, I_{CEO} from 2 μA to 1 amp. Collector current adjustable from 20 μA to 1 amp (in 4 ranges) for testing of most transistors at rated current. NPN and PNP sockets for matching transistors. Tests relative diode front-to back ratios. With leads, batteries. 6⅞"x5¼"x3⅛". Shpg. wt. 4 lbs.

901-4501. 1-3 .. **Each 95.00. 4-Up** ... **85.50**

15

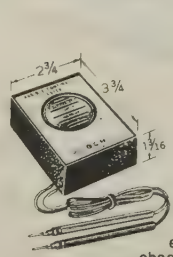
INTEGRATED CIRCUIT TESTER

- **Battery Powered—For Static and Dynamic Logic Levels**
- **Simulates Operating Conditions—Adapts to All Flat-Packs**



MODEL IC590. Battery-powered tester for static and dynamic logic levels in a range of 5 and 15 volt families (TTL and DTL). For all 14 and 16 pin dual-in-line devices. Adapts to all flat-packs. Simulates operating conditions. Color-coded readout for static logic test to each pin position; white for logic "O," red for logic "1." Great for all industrial uses. Ideal for teaching truth table logic relationships.
Internal Power Requirements: operates on 12 VDC (uses 6 "C" cell batteries). **Voltage:** for all 5-volt logic systems from 4.75 to Vc. **Logic Level Response:** 0-1 VDC—logic "O" readout color-coded white; 1-2.2 VDC—no readout; 2.2 VDC-Vc—logic "1" readout color-coded red. **Pulse Detection Response:** low range, 2 pps; high range, 20k pps (or push-button single pulse generation). **Input and Output Terminations:** 5-way binding posts. Size, 13½"x10"x4". Shpg. wt. 4 lbs.

838-1650 ..... **Each 212.86**



AUDIBLE CONTINUITY TESTER

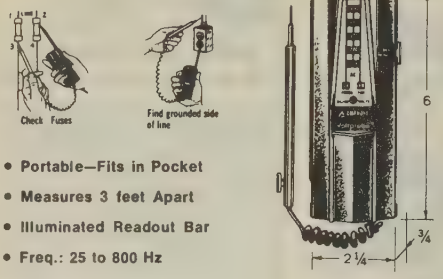
- **Battery Powered**
- **Portable, Lightweight**

Indicates circuit continuity with clear, audible tone—eliminates the need for visual checks. Pitch varies with resistance (0-50 ohms). Unique short-circuit measurement draws just 6 milliamps at probes. Low voltage—no danger of destructive inductive kickback. Safe with semiconductors and delicate circuits. 30" test probe leads. Uses 9-volt battery. 3¾x2¾x1⅜". Shpg. wt. 8½ oz.

532R-0801. 1-9 .. **Each 12.95** **10-24** .. **Each 10.82**
25-99 ..... **Each 8.97** **100-Up** . **Each 7.97**

Multi-Purpose and High Voltage Test Equipment

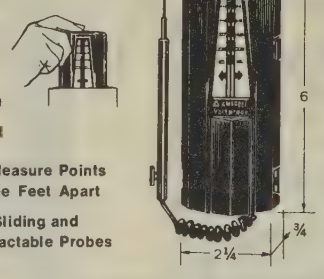
AC VOLTAGE TESTER



- Portable—Fits in Pocket
- Measures 3 feet Apart
- Illuminated Readout Bar
- Freq.: 25 to 800 Hz

MODEL VT-124 VOLTPROBE. Lightweight. Pocket-portable to allow use anywhere—anytime. Checks AC circuits in climate control equipment, switching systems, electric garage door operators, industrial equipment controls. Also checks fuses and determines the grounded side of lines and motors. Retractable probe. Measures points 3 feet apart. "Thermometer style" illuminated readout bar. Voltage levels shown: 24-48-115-220-227-440-450 AC. Operates over a frequency range of 25 to 800 Hz. Overall size with probes retracted is 6x2¼x¾". Wt. 8 oz.
715-4675.....**Each 19.42** **4-Up**.....**Each 15.50**

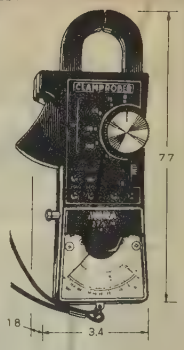
MULTI-PURPOSE VOLTAGE TESTER



- Can Measure Points Three Feet Apart
- Both Sliding and Retractable Probes

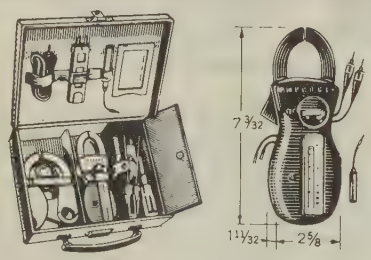
MODEL VT-100 VOLTPROBE. AC and DC voltage readings, also shows DC polarity. Nominal voltage levels shown "Thermometer style" by series of two windows corresponding to each voltage level. Ranges: 115-220-227-440-550 VAC; 115-220-400-600-750 VDC. On AC measurements both windows light. Frequency range of 25 to 800 Hz. On DC measurements only one window of the pair lights, indicating the positive side of the line. Sliding probe; retractable probe with 3-ft. coil cord. High-impact case. 6x2¼x¾" probes retracted. 8 oz.
715-4670.....**Each 11.72** **4-Up**.....**Each 9.95**

275-M CLAMPROBER®



- Easy, Accurate and Safe
- AC Voltage, Current, Resistance
- Exclusive "Measurement-Hold"

AC current from 1 to 300 A, voltage from 25 to 600 V, resistance from 5 ohms to infinity. Exclusive "measurement-hold" feature stops the meter movement in any position—lets you take readings in dark difficult-to-read locations and read them later at a more convenient place. Meter movement protected against accidental burnouts. Completely self-contained. No external power needed. "AA" UM-3 battery, leather carrying case, test leads. Ranges: AC Current—6, 15, 60, 150, 300, 600 Volts. Resistance—00 to 1000 ohms, and to infinity, with 30 ohms center scale. Accuracy: 3% of full scale. Transformer breakdown voltage, 200 volts. Maximum circuit voltage, 500 volts. Size is 7.7x3.4x1.8". Shpg. wt. 2 lbs.
560-0275..... **Ea. 59.95** **4-Up**..... **Ea. 46.15**



A B

A TM-33A TEST-MASTER KIT

Complete troubleshooting and test kit. Consists of RS-3 AC Voltmeter-Ammeter-Ohmmeter with 3 ranges to 600 volts, 5 ranges to 300 amps and 25-ohm (midscale) range; A-50-1 Deca-Tran to multiply amps ranges 10X; A-45L Energizer to increase current sensitivity; and VLK-311 Extendo Leads. Portable case with snap-lock and space form small tools. 11¾x8x3". Shpg. wt. 3 lbs.
715-4333.....**Ea. 141.35** **4-Up**.....**Ea. 112.85**

B RS-3 ROTARY-SCALE TESTER

Provide greater accuracy—only one scale, appropriate to the range selected, shows behind magnified unbreakable window. Pointer-lock freezes readings; measure in the dark, read in light. For safety, insulated jaws clamp around conductor (up to 1⅛" dia.) for current. Test leads plug in for voltage and resistance checks. Reads 0-150-300-600 V, AC; 0-6-15-40-100-300 amps, AC; 25 ohms mid-scale. Accuracy ±3% full scale. Portable case, leads. 7⅜x2⅝x1 11/32". 2 lbs.
715R3003 ..... **Ea. 79.27** **4-Up** ..... **Ea. 63.25**

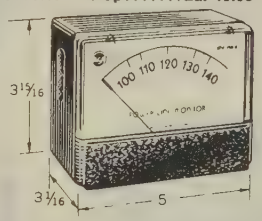
JR. TEST MASTER KIT

TM-YO-525. YO Amprobe Jr., A-45L Energizer, case. Measure voltage, current and resistance. Energizer increases sensitivity 5 or 10 times for precise readings on motors and appliances. Voltage: 0-150/600. Current: 0-2.5-5-25 amps. Ohmmeter: 25 ohms mid-scale. 4¾ x 2½ x 1⅜". Test leads. 1½ lbs.
715-4525.....**Ea. 54.49** **4-Up**.....**Ea. 43.50**

MODEL RS-1000. Same as RS-3, but reads 0-15-40-100-300-1000 amps, AC. Takes 2" conductor.
715-3010.....**Ea. 100.96** **4-Up**.....**Ea. 84.95**

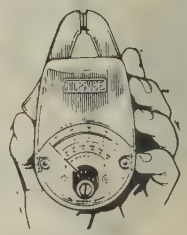
MODEL RS-1. Reads 0-6-15-40-100 amps, AC; 0-150-600 V, AC. No resistance range.
715-3001.....**Ea. 58.13** **4-Up**.....**Ea. 48.85**

WV-120B POWER LINE MONITOR



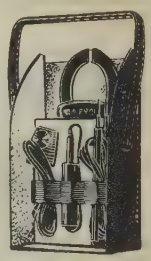
Provides continuous line voltage monitoring without need for interrupting work to check. Can be used with isolation transformer for selecting line voltages for accurate equipment checks. Voltage range: 100-140 V. Frequency range: 25-400 Hz. Accuracy: ±2% at 120 volts. Moving vane type meter provides accurate readings. Metal case, 3⅛x5x3⅛". Shpg. wt. 1½ lbs.
901R4620. 1-3 ... **Ea. 29.00** **4-Up** ..... **Ea. 26.10**
WV-503A. As above, 200-240 volts.
901-4703. 1-3 .... **Ea. 27.00** **4-Up** ..... **Ea. 24.30**

JUNIOR TESTER



MODEL YTO525/100. Reliable snap-around tester measures 0-150 and 0-600 volts AC, 0-25 and 0-100 amps AC, plus resistance (25 ohms mid-scale). Compact and lightweight—fits in a pocket. Accurate, one-hand operation ends guesswork. Accuracy, ±3% full scale. Supplied with set of voltage test leads. Perfect as a spare instrument. Shpg. wt. 1 lb.
715-5095.....**Ea. 46.66** **4-Up**.....**Ea. 37.25**

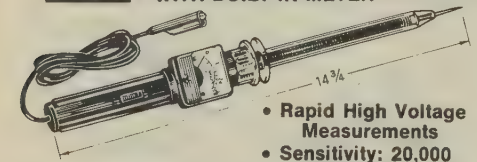
TEST-MASTER KIT



MODEL TM-63. Includes RS-3 Rotary-Scale Snap-Around Volt-Amp-Ohmmeter that reveals only one range at a time to eliminate guesswork. Insulated jaws clamp around conductor (up to 1⅛" dia.) for current; test leads plug in for voltage and resistance tests. Ranges: 0-150/300/600 VAC; 0-6/15/40/100/300 amps AC; 25 ohms mid-scale. Accuracy, ±3% full scale. With **VLK-311 "Extendo-Leads"** that eliminate the need for a "third hand"; plus **A-45L Energizer** that increases RS-3 sensitivity 5 or 10 times. Compact case has hinged cover, snap lock, handle. 12x4¼x3". Wt 3 lbs.
715-4363.....**Ea. 95.00** **4-Up**.....**Ea. 75.85**

HIGH-VOLTAGE TEST PROBES

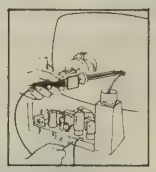
DC TEST PROBE WITH BUILT-IN METER



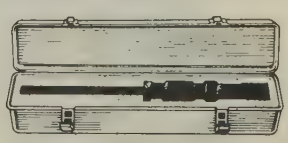
- Rapid High Voltage Measurements
- Sensitivity: 20,000 Ohms/Volt

Unique test probes with built-In voltmeter for fastest measurements. Has alligator clip for grounding to chassis. No warm-up time required; no batteries needed. Has 50 μA movement. Accuracy, ±3% full scale. Only 14¾" long. *With Type 3295 carrying case. †Indic. Multiplier resistance. Av. shpg. wt. 8 oz.

Stock No.	Mfr's Type	FS V.	† Meg	EACH 1-9	EACH 10-49	EACH 50-Up
885R0664	4000	36,000	600	27.50	24.95	22.46
885-0690	3157*	15,000	300	38.02	34.50	31.05
885-0695	3163*	6,000	120	38.02	34.50	31.05



MODEL 3295 CARRYING CASE



A quality-built carrying case especially designed for protection of high voltage probes listed on this page. Constructed of tough, shatterproof thermoplastic. The inside is lined with shock-absorbing material. Wt. 1 lb.
885-0770. 1-3 ..... **Ea. 10.70** **4-Up** ..... **Ea. 7.14**

10 KV TEST PROBE WITH BUILT-IN METER — AC

- For Testing Neon Sign Transformers, More
- Shielded Movement

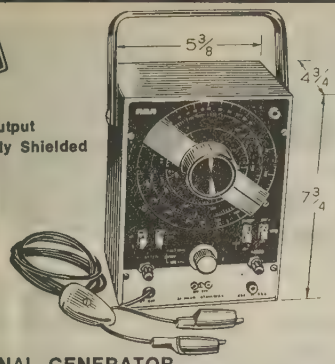
Just ground the test probe by attaching alligator clip to chassis, contact test probe tip to high voltage and read voltage from built-in meter. Sensitivity, 2000 ohms/volt (500 μA) movement. Accuracy, ±3%, 30 Hz to 1000 Hz. Multiplier resistance, 20 meg. Length, 14¾". Model 3295 carrying case included. Shpg. wt. 8 oz.

Stock No.	Mfr's Type	FS VAC	EACH 1-9	EACH 10-49	EACH 50-Up
885-0750	3200	10,000	38.02	34.50	31.05

Audio and RF Signal Generators, Signal Tracers

ASSORTED TEST GEAR

NEW!



- Sweep Output
- Completely Shielded

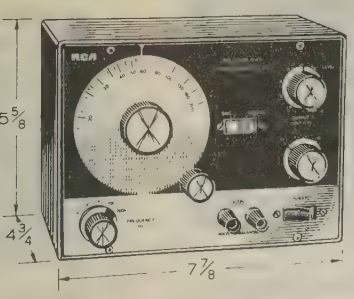
RF SIGNAL GENERATOR WITH MOST WANTED TESTING FEATURES

MODEL WR-50B. Ideal for alignment, troubleshooting in shop, lab, factory, school, home. Tunable on fundamentals from 85 kHz to 40 MHz; harmonic output on higher bands. Special sweep output at 455 kHz and 10.7 MHz for sweep alignment of broadcast and FM IF's. Built-in modulation plus crystal-oscillator circuit (less crystal) for special markers, calibration. Completely shielded, including output cable (supplied) with DC blocking capacitor.

Sweep width, approximately 10% of center frequency. Variable oscillator: six ranges, fundamental freqs., 85 kHz-40 MHz. RF output, 0.05 rms volt min., all ranges. Power supply, 105-130 volts, 50-60 Hz (changable to 240 volts, 50-60 Hz). Power consumption, 15 watts. Size: 7¾x5⅜x4¾". Shpg. wt. 5 lbs.

901-1050. 1-3....Each 99.00 4-Up....Each 89.10

NEW!



AUDIO SINO/SQUARE-WAVE GENERATOR FOR AUDIO, HI-FI, ULTRASONIC AND GENERAL ELECTRONICS APPLICATIONS

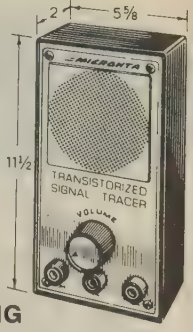
- All Solid State for High Reliability
- Combines the Most Wanted Features of Two Units

MODEL WA-504B/44D. Solid-state throughout. Features include constant 600-ohm output impedance. Excellent for frequency-response tests, general audio testing, troubleshooting and design work.

Frequency range, 20 Hz to 200 kHz (four ranges). **Sine wave-output voltage** (100,000 ohms, 75 pF load), 10 p-p volts min. **Square wave output voltage,** 10 volts p-p. Power supply, 108-132 volts, 50-60 Hz (can be changed to 240 volts, 50-60 Hz). Power consumption, approximately 8 watts. Size: 7⅞x5⅝x4¾". Shpg. wt. 5 lbs.

901-1504. 1-3...Each 114.00 4-Up....Each 99.95

MICRONTA®

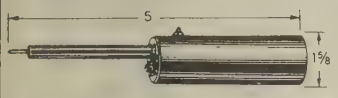


TRANSISTORIZED SIGNAL TRACER FOR STAGE-BY-STAGE CIRCUIT CHECKING

- Checks RF, IF, Audio Signals From Antenna to Speaker
- Essential for Servicemen, Technicians, Hobbyists

MODEL 22-010. Checks the actual signal as it travels stage-by-stage through any receiver, amplifier or tuner. Troubleshoots electronic equipment in the most basic manner possible—by determining the manner in which the signal passing through the equipment is handled by the various circuits. Easy to use, with complete instructions provided. Has built-in 2" speaker and adjustable volume control. Comes complete with 9-volt battery, test leads and easy-to-follow instructions. Transistorized—can even be used for testing microphones, record players, and FM-AM tuners and receivers. Size: 2x5⅝x1½". Shpg. wt. 1 lb.

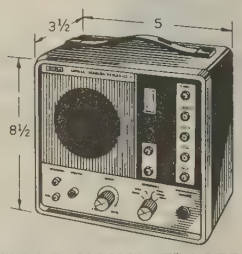
910-4510 .....Each 12.95



HAND-HELD SOLID-STATE SIGNAL GENERATOR/ PROBE/INJECTOR

MODEL 22-4032. All-purpose signal generator with built-in signal injection probe for quick and easy tube or transistor-circuit trouble-shooting. Produces signals for tracing in AF, IF and RF circuits. Simple pushbutton operation. Has battery-strength indicator lamp. Sizes: 5" long x 1⅝" diameter (less probe). Complete with batteries. Shpg. wt. ½ lb.

910-4382 .....Each 6.95

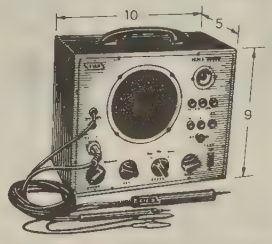


DELUXE SIGNAL TRACER

- Checks Radios, Tuners, Amplifiers
- 400 Milliwatt Continuous Output
- Supplied Complete with Probe

MODEL 150W. Checks radios, amps and tuners stage-by-stage to determine where the problem lies. Has RF and audio inputs with probe. Provides 400 mW continuous power output. Built-in speaker, plus calibrated meter output indicator. Substitution amplifier, output transformer. For 117 VAC. Includes test probe. Size: 3½x8½x5". Shpg. wt. 6 lbs.

775-0150 .....Each 106.83
4-Up .....Each 99.95

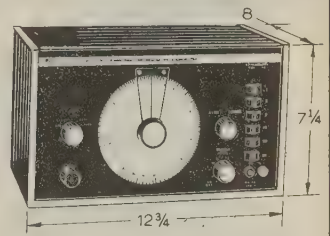


VERSATILE SIGNAL TRACER

- High-Gain RF and Audio Input
- Visual Eye and Speaker
- VTVM/Oscilloscope Output

MODEL 147W. Invaluable aid for step-by-step servicing of FM/AM radios, amplifiers and tuners. Has two input channels—high-gain RF and audio. Visual eye tube and speaker monitor. With noise locator, wattmeter, VTVM/oscilloscope output. High gain for tracing to receiver input. Essential for servicemen, technicians and hobbyists. For 117 VAC. Overall size, 9x10x5". Shpg. wt. 10 lbs.

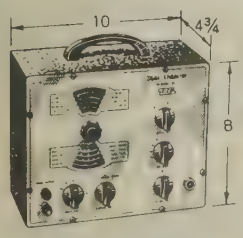
775-0147 .....Each 93.47
4-Up .....Each 79.95



SOLID STATE SINE/SQUARE WAVE SIGNAL GENERATOR

MODEL E310B. Includes FET in oscillator, silicon transistors and zener-regulated power supply. Fully shielded. Large 5" dial scale with 12 to 1 gear ratio drive. Continuously variable output control, plus 6 step attenuator. Fast sine wave rise time, less than 100 nanoseconds. Frequency calibration accuracy, ±3%. 3-wire grounded AC line cord. **Sine Wave.** Freq. range, 20 Hz to 2 MHz in 5 decade ranges. **Square Wave.** Freq. range, 20 Hz to 200 KHz in 4 ranges. Power req., 100-130 VAC, 50/60 Hz. 15 watts. 9½ lbs.

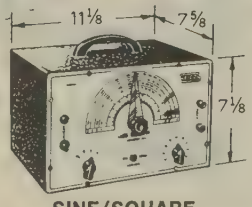
731-0310. 1-3 .....Each 153.00
4-Up .....Each 145.00



RF SIGNAL GENERATOR

MODEL 324W. Signal generator has expanded frequency range, covering 150kHz to 145 MHz in six fundamental bands. One harmonic band covers 111 to 435 MHz. Has 400-Hz sine wave output, varible 0-50%; also takes external modulation sources. Single control for internal or external modulation. Coarse and fine RF attenuators provide smooth control of RF output signal. Accuracy: ±1.5%. Has 6:1 vernier tuning dial for exact frequency settings. 8x10x4¾". Operates from standard 115 VAC. Shpg. wt. 8 lbs.

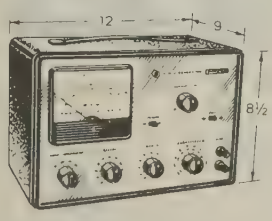
775-0324. 1-3 Ea. 93.47 4-Up Ea. 79.95



SINE/SQUARE WAVE GENERATOR

MODEL 377W. Sine-wave range: 20-200,000 Hz in 4 bands. Square-wave range: 60-30,000 Hz in 4 bands (5% tilt at 60 Hz, 5% rounding at 30,000 Hz). Response: ±1½dB, 60 Hz to 150 kHz. Output: 10 volts across 10 ohms rated (100 mW); drops to 8 volts across 500 ohms, rises to 14 volts across 10K ohms or higher. Wien Bridge oscillator with 1% resistors. Calibration accuracy: ±3% or 1 Hz, whichever is greater. Hum: under 0.4% of rated output. Distortion: less than 1%. 6½" dial. Aluminum/steel case. 7⅛x11⅛x7⅝". 117 VAC. Shpg. wt. 14 lbs.

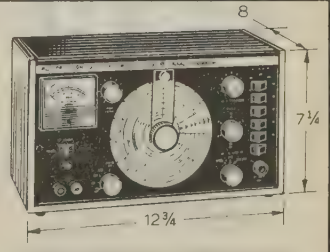
775-0376. 1-3 .....Each 105.16
4-Up .....Each 89.95



DELUXE AUDIO GENERATOR

MODEL 378W. Low-distortion sine wave output 1 Hz to 110 kHz. Detent switches select 1 Hz, 10 Hz, 100 Hz, 1 kHz steps. Low distortion (less than 0.1% from 20 Hz to 20 kHz). Frequency accuracy of ±5%. Detent switches select combinations of 1% resistors and 2% capacitors for precise metered output, controlled by 8-position decade and fine attenuators. Output level sets 0 to 10-V rms (or —70 to +22dB) on 4½" meter. Below 1-V rms output, switch-selected internal 600-ohm load can be disconnected. 8½x12x9". 117 VAC 16 lbs.

775X0378. 1-3 .....Each 151.92
4-Up .....Each 129.95



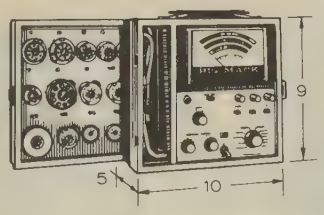
RF SIGNAL GENERATOR

MODEL E-200D. Solid state, 100% silicon transistor circuitry and zener-regulated power supply. Six individually shielded step attenuators plus a variable fine output level control with calibrated meter. Full shielding eliminates spurious radiation even at outputs of 1 μV. Accuracy of better than 0.1% possible with internal crystal calibration. Built-in speaker. Frequency range, 54 to 216 MHz on harmonics, 100 KHz to 54 MHz in 5 fundamental bands. Power requirements, 110-130 VAC, 50/60 Hz, 6 watts. Overall size, 12¾x7¼x8". Wt. 10 lbs.

731-0200. 1-3 .....Each 229.00
4-Up .....Each 217.50

15

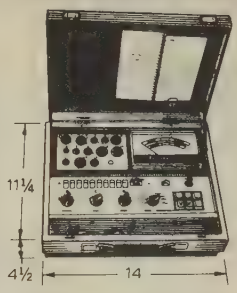
Tube & CRT Testers, Assorted Test Equipment



AUTOMATIC CRT TESTER

MODEL CR168. Features automatic tracking. No calculations needed. Computer memory bank stores the necessary information. Simply read tracking on meter after making emission tests. Simplified operation. No instruction book needed, just follow the function control. Test all CRT's including 17" Japanese Triniton and the new RCA 110 degree short tube. Reads heater to cathode or cathode to control grid shorts right on 7" D'Arsonval meter. Filament voltage and shorts test also read on the meter. Shpg. wt. 12 lbs.

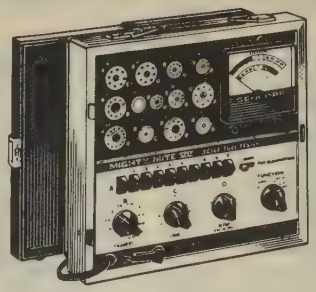
941-0168. 1-3 Ea. 275.00 4-Up Ea. 247.50



HYBRIDER TUBE AND TRANSISTOR CHECKER

MODEL TC28. Checks any type of circuit whether its tube, solid state or hybrid. Ideal for amplifier checking. No more idiot lights—even reads heater to cathode leakage on meter. Checks for full emission, 100 megohm grid leak and all internal shorts; also transistor or FET in or out of circuit with the push of a button. Requires no set-up book. Computer logic circuit does the job. Checks over 3000 tubes, foreign and domestic and 20,000 different transistors. Compact and lightweight. 12½ lbs. 4½ x 11¼ x 4".

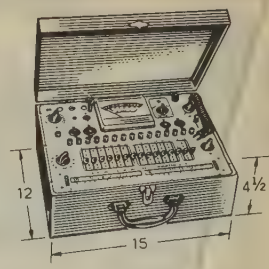
941-0028. 1-3 Ea. 260.00 4-Up Ea. 234.00



MIGHTY MITE TUBE TESTER

MODEL TC162. This new improved model checks just about every tube type you'll come across in general servicing. Pin elimination switches effectively cut off the inner connected pin, allowing many more tubes to be tested. Elimination switches operate independently for ease of repair. Checks cathode emission at full rated load and grid leakage at 100 megohms. This unique feature has made it the fastest selling tube tester anywhere. It also provides highly sensitive stethoscopic shorts test. Complete with operating instructions.

941X0202. 1-3 Ea. 150.00 4-Up Ea. 135.00



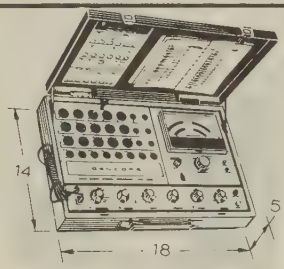
MUTUAL CONDUCTANCE TUBE/TRANSISTOR TESTER

Model 667W. Combines mutual conductance (Gm) with plate conductance (Gp) tests into dynamic and peak emission test for single readout. Transistor gain/leakage tests. Checks nuvistors, novars, compactrons, miniatures, subminiatures, octals, loctals, special purpose tubes, VR's, cold cathode regulators, electron-ray indicators. 4½" D'Arsonval meter with 200 μA sensitivity. Roll chart. 4½x15x12" case. Shpg. wt. 23 lbs.

775U-0667. Ea. 222.06 4-Up Ea. 189.95

Model CRU CRT Adapter. Cathode ray tube test. Shpg. wt. 1 lb.

775-1701. 1-3 Ea. 30.00 4-Up Ea. 24.95

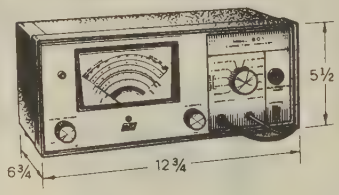


MUTUAL CONDUCTANCE/ EMISSION TUBE ANALYZER

MODEL MU150 CONTINENTAL II. No more need to work with time-consuming old-fashioned tube testers with up to fourteen knobs and a rough 60 Hertz sine wave test. Continental tests them all including foreign tubes . . . over 3000 in all. Checks tube for Gm with a 5000 Hertz square wave for a true Gm test. Also checks tube for full load cathode emission, 100 megohm grid leakage test. True shorts picked out with patented stethoscopic shorts test. Size: 17x11x14". Shpg. wt. 18 lbs.

941-0150. 1-3 Ea. 350.00 4-Up Ea. 315.00

CAPACITOR ANALYST



- **Wide-View Meter With Clear Easy-to-Read Scales**
- **Has the Latest Solid State Circuitry**
- **Sturdy Metal Cabinet**
- **Polarity Protected**

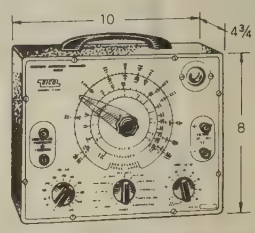
MODEL 801. For foil, mica, ceramics, electrolytics. Tests electrolytics out-of-circuit for energy storage, effective capacitance to 2000 uF. 25 pF to 100 uF. In circuit or out-of-circuit for leakage to 50 megs, shorts 10 pF to 200 uF (low as 25-ohm shunt); opens (low as 50-ohm shunt) down to 25 pF. Polarity protected. Line isolated supply. 5½ x 12¾ x 6¾. For 117 VAC. Shpg. wt. 11 lbs.

731U0801. 1-3 Ea. 143.00 4-Up Ea. 135.85

BRIDGE TYPE CAPACITOR TESTER

MODEL 955W. Tests capacitors for shorts, opens and value, in or out of circuit. Short test: up to 2000 μF, with 1 ohm shunt resistance; maximum test voltage, 6.3 VAC (open leads), decreasing with decreasing Impedance. Successful open test made on capacitors as low as 15pF. Capacity measurement: From 0.1 to 50 μF in or out of circuit, with Wein bridge circuit; shunt resistance as low as 35 ohms. Uses one coaxial lead for all tests; mike connector coupling. Completely portable size is only 8½ x 5¾x6". Less leads. Operates on standard 115 VAC. Shpg. wt. 6 lbs.

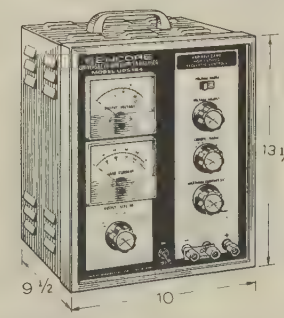
775-0955. 1-3 Ea. 81.78 4-Up Ea. 69.95



R-C BRIDGE CAPACITOR TESTER

MODEL 950W. Combination R-C Bridge plus R-C-L Comparator reads 0.5 ohm to 500 meg and 10pF to 500 μF (in four ranges). Tests are completely accurate and reliable. Variable 0-500 VDC source tests capacitors for both shorts and leakage. Highly versatile unit also yields measurements for the power factors of electrolytics. Large dial is easy-to-read. Carrying handle. Take anywhere that testing is needed. Completely self-contained. 8x10x4¾". 115 VAC. Shpg. wt. 6 lbs.

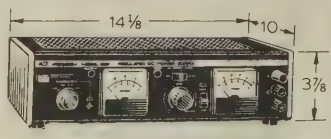
775X0950. 1-3 Ea. 81.78 4-Up Ea. 69.95



UNIVERSAL POWER SUPPLY

Model UPS164. Provides all voltages needed to service solid state car radios and tape players. Allows monitoring of load conditions with a voltage meter and a current meter both switched for either supply at 3% accuracy. Both meters 3½" moving coil, D'Arsonval. Provides 6 volts to 20 amps fixed, 12 volts to 10 amps fixed, 0 to 35 volts variable to 2 amps. 0 to 2 amps adjustable to any in-between level by Max. Current Set control. Ripple less than 0.018% on 0 to 35 volt range. 0.2 peak to peak, no-load, on high current ranges. 100% current protection, protects supply and circuit under test. Black vinyl-clad steel case. 10x13½x9½". Wt. 23 lbs.

941-0120. 1-3 Ea. 260.00 4-Up Ea. 234.00

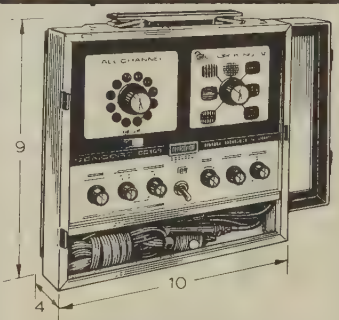


LABORATORY POWER SUPPLY

Fail-safe overload protection automatically shuts power supply down whenever current exceeds preset level. Output voltage is continuously variable and adjustment of output level is extremely simple. Select one of two meter scales and then adjust variable control until voltmeter reads desired voltage output. Permits setting output to precise required level quickly and easily for testing units over wide supply voltage range. SET/RESET combination Current Limit pushbutton simplifies setting current limit and resetting after overload. Standby switch disconnects load for safe quick adjustment without disturbing voltage or current settings. On/Off switch combined with voltage output control assures zero output voltage when power supply is turned On. With leads and instruction manual. 14⅛ x 3⅞ x 10". 11 lbs.

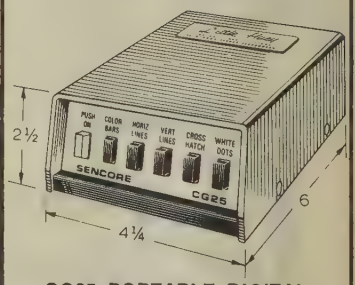
Model 1601. Output Voltage: 0-50 VDC, continuously variable. Two ranges: 0-25 and 0-50 VDC. Output Current: 0-2 amps. Four ranges: 0-50 mA, 0-0.2 amps, 0-0.5 amps, 0-2 amps. Power Requirements: 105-125 VAC, 60 Hz.

731-1601. 1-3 Ea. 175.00 4-Up Ea. 166.25



Model CG169. All channel generator. Digital integrated circuitry. Single fixed dot for centering and static convergence. Single fixed cross for centering and static convergence. Movable dot for dynamic convergence. Movable cross for dynamic convergence. Produces TV VHF and UHF channels for complete tuner testing. RCA licensed 10 color bars across entire color spectrum. 14 horizontal bars, digital controlled. 10 vertical bars, digital controlled. 140 small adjustable dots, digital controlled. RF attenuation fringe simulator control for fringe area checks. Thermostatically controlled heater for colder climates. 105-130 VAC, 50 watts. Black vinyl covered steel case. 10x9x4" Wt. 10 lbs.

941-0169. 1-3 Ea. 225.00 4-Up Ea. 202.50

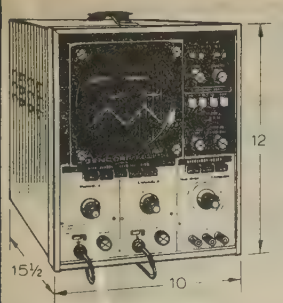


CG25 PORTABLE DIGITAL COLOR BAR GENERATOR

Model CG25. Complete small color bar generator with channel tuning and color adjust level. Positive digital locking insures stable patterns. Adjustable dot size and channel selection for channels 2 to 6. Automatic shutoff of battery power. Built in preheater for colder climates. RCA licensed 10 color bars across entire color spectrum. 14 horizontal bars, digital controlled. 10 vertical bars, digital controlled. 140 small adjustable dots, digital controlled. Lead storage compartment. Uses two mercury batteries, Eveready E164 mercury or equivalent (not supplied). Size: 6x4¼x2½". Wt. 2 lbs.

941-0025. 1-3 Ea. 99.00 4-Up Ea. 89.10

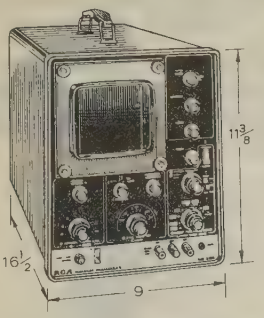
Oscilloscopes, Add-On Dual Tracer, Curve Generator



DUAL TRACE TRIGGERED SWEEP SCOPE

- Pushbutton Selection of Trigger Sources

Model PS163. Extremely stable triggered sweep with full bandwidth capability in both automatic and manual modes. Phase locked matched channels with less than 1% phase shift between channels. Free running feature allows use as a sync sweep service scope. Fully protected FET input of 1000 VDC and 5000 VAC p-p using low cap probe. All solid state with regulated 2 kV CRT supply for bright trace. Front panel Vector capability with push of a button. Separate TVV and TVH functions with sync separators. Specifications: Vertical: Sensitivity, 5 mV/cm to 50 V/cm with low cap probe. Band width, DC-8 MHz ±3 dB usable to 20 MHz. Accuracy, ±2%. Rise time, 35 ns. Input impedance, 1 meg shunted by 35 pF; 10 meg/lo-cap probe. Horizontal: Time base, 0.1 μs/cm to 0.1 sec/cm in 19 ranges. 115 VAC. With 2 low-cap probes.
941-0163 ..... Each 795.00 4-Up ..... Each 715.00



NEW!

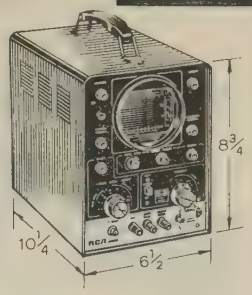
SOLID-STATE 5" OSCILLOSCOPE WITH TRIGGERED SWEEP

- All Solid-State
- Illuminated Graph Screen Calibrated Directly in Volts

Model WO-535A. Scope featuring DC/AC input, preset TV "V" and "H" frequencies. Usable response to 10 MHz; vertical sensitivity 5.9 mV p-p/cm. Has phase control, simplified calibration system, return-trace blanking, direct-connect CRT terminals, and camera mounting studs. Recurrent or triggered sweep, non-recurring or random pulse patterns may be observed. Sync filter for lock-in of composite waveforms. Vertical Amp.: Response, DC to 10 MHz (DC to 5 MHz ±1 dB); Sensitivity: 15 mV P-P/inch (5.9 mV) P-P/cm; Input Impedance, 1 meg/75 pF. Horizontal Amp.: Response, 3.5 Hz to 2 MHz±3 dB; Sweep Osc. (Recurrent), 10 Hz to 1 MHz; Pre-set Positions, 30 Hz and 7875 Hz. For 120V, 60 Hz AC. With Direct/Low Capacitance Probe.
901-4035 ..... Each 349.00 4-Up ..... Each 314.00

NEW!

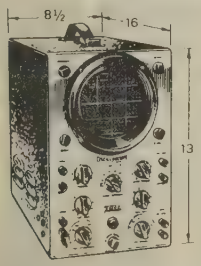
SOLID-STATE 3" OSCILLOSCOPE



- Built-In Quicktracer Transistor and Diode Tester
- Built-In Vectorscope Function for Color TV, Built-In Ringing Test

Model WO-33B. Portable 3-inch oscilloscope. Featuring high gain, exceptional bandwidth and phase control. Internal calibration signal and calibrated graph screen permits direct peak-to-peak voltage measurements. Efficient solid-state power supply stage. **Vertical Amp.** Frequency Response: Wide-Band Positions (1.5 V-150 V ranges); 3Hz to 10 MHz (3 Hz to 5 MHz, −3 db). High-Gain Positions (.05 V-0.5 V. ranges); 20 Hz to 150 kHz, −3 dB. Sensitivity: High-Gain Positions, 10 mV P-P/inch. Wide Band Positions, 0.3 V P-P/inch. Input (direct probe): 1 meg shunted by 80 pF. **Horizontal Amp.** Frequency Response: 3.5 Hz to 350 kHz. Sensitivity: 2.5 V P-P/inch. For 120 V, 60 Hz AC Direct/Low-Capacitance Probe and Quicktracer probe incl. Wt. 14 lbs.
901-4033 ..... Each 249.00 4-Up ..... Each 224.10

5" WIDEBAND OSCILLOSCOPE



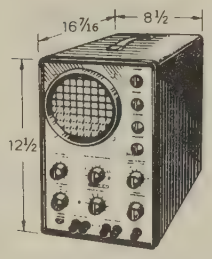
- 4-Step Attenuator
- Edge-Lit Grating with Dimmer
- Full Screen DC Positioning
- DC to 10 MHz Vertical Response

Model 460W. Vertical sensitivity: 25 mV p-p/cm. DC to 10 MHz vertical response, flat to 4.5 MHz. Easily reproduces 3.58 MHz color sync burst. Sweep: 10 Hz to 100 kHz. Plus, minus, internal, external and line-frequency sync. For 105-125 V, 50-60 Hz AC. 13 x 8½ x 16". Shpg. wt. 28 lbs.
775R0460 ..... Each 237.93 4-Up ..... Each 189.95

PROBES: Shielded. For 460 and 427 on this page. Av. shpg. wt. 8 oz.

Stock No.	Mfr's Type	Description	EACH 1-4	EACH 5-Up
775R2200	PSD	Demodulator	13.92	11.14
775R2100	PD	Direct Probe	12.17	9.74
775R2150	PLC	Low-Capacity	13.22	10.58

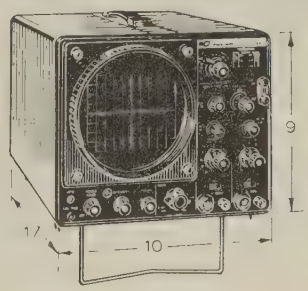
DIRECT-COUPLED 5" OSCILLOSCOPE



- 3-Stage Push-Pull Amplification
- Zener Diode Calibration
- Frequency-Compensated 4-Position Attenuator
- Fully Automatic Sync

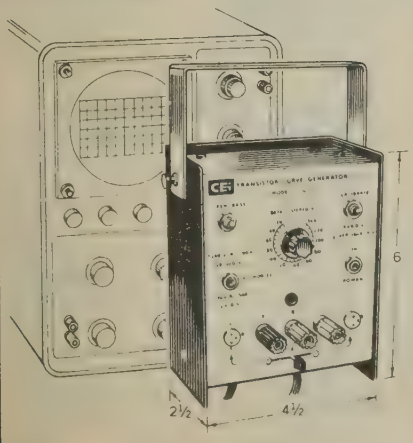
Model 427. Highly sensitive, general-purpose scope has direct coupling throughout the vertical amplifier. Makes DC or p-p AC (or combination) measurements from 10 mV to 500 V. Trace is sharp and clean, free of "blooming", can be expanded to 30 cm vertically and 20 cm horizontally. Instant drift-free positioning. Intensity, focus, astigmatism, DC balance controls and sawtooth sweep output on front panel. Positive or negative sync (internal, external or line-frequency). Vertical response: DC to 500 kHz (+1, −3 dB); sensitivity, 3.5 mV rms/cm (10 mV p-p/cm). Horiz. response: 2 MHz to 450 kHz (+1, −3 dB); sensitivity 0.18 V rms/cm. Sweep ranges: 10-100, 100-Ik, Ik-10k, 10k-100 kHz. Imped.: vert., 1 meg/30 pF; horiz., 10 meg/40 pF. 117 VAC. 12½ x 8½ x 16 7/16". 23 lbs.
775X0426 ..... Each 222.06 4-Up ..... Each 189.95

DUAL TRACE TRIGGERED SWEEP SCOPE



- Six Modes of Waveform Display
- Dual-Trace Allows Easy Comparisons of Inputs and Outputs
- Countless Servicing Applications

Model 1470. Allows comparison of inputs and outputs, or outputs of multiple stages triggered by the same pulse. Six modes of waveform display permit comparison of shape and time duration. Quickly check inputs and outputs of video amplifiers, burst in and out of gate amplifiers, stages keyed by TV horizontal pulse. Vertical Sensitivity: 10 mV/cm. Response: DC to 10 MHz. Rise time, 35 nsec. 115 VAC. 23½ lbs. Less probes.
731-1470 ..... Each 580.00
731-0040/PR-20 Probe ..... Each 24.00



SOLID STATE TRANSISTOR CURVE GENERATOR

- Tests Transistors In and Out of Circuit
- Tests for "Open Base" and "Shorted Base"

Model TCG-1. Tests FET's, MOSFET's, diodes, zener diodes, tunnel diodes, other devices. Identifies unknown transistor types. Checks NPN and PNP types consecutively without changing controls or polarity switches. Tests dynamic characteristics plus collector current vs. collector voltage family or curves. Compatible with most oscilloscopes. Two TO-5 transistor test sockets. Regulated power supply. No need to interpret scope display or calculate Beta—front control panel reads Beta directly. Built-In calibrator calibrates vertical and horizontal scope and channels. With operating manual. 115 VAC.

766-0001 ..... Each 98.88
766-0002. Instruction Book. Detailed instructions **2.12**

SPECIFICATIONS

COLLECTOR SUPPLY. Voltage Range, Normal Mode: ±10V, 550 Hz sawtooth and 500-ohm source impedance. **Voltage Range, Breakdown Mode:** ±200V, 60 Hz sine wave plus 100,000 ohm impedance.
STEP GENERATOR. Base Current: Ranges from ±.02 mA per step to ±0.2 mA per step. Step generator continuously variable with front panel "Beta" potentiometer. Number of Steps: Total of ten steps, 5 pos. and 5 neg.
INTERNAL DISPLAY CALIBRATOR. Vertical: ±0.2V. **Horizontal:** ±4V. Voltages are applied to scope's amplifiers. Produces a diagonal line display.

NEW!

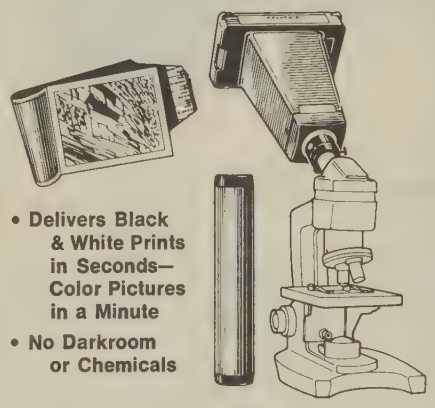
OSCILLOSCOPE ADD-ON DUAL-TRACER

Model WM-541A. Why buy a new scope? Update your triggered or recurrent-sweep scope to DUAL TRACE! The Dual-Tracer provides two displays on a single-trace oscilloscope for simultaneous viewing of two signals. Great for TV, stereo and digital equipment servicing. Makes comparison tests of gain, frequency, response, distortion, phase shift and time delay. And — the WM-541A can also be used to add additional trace(s) to dual-trace scopes! Display modes include Channel A, Channel B, or A + B "chopped" or "alternate". Continuously variable switching rate Also has AC or DC coupling, vertical position controls for both channels, separate and variable sync level control with polarity reversing switch and two 6-step compensated attenuators (1,2, 5 ratio). Response is usable to 10 MHz. 10 mV to 50 V direct input Max. Signal Output: 1-V P-P. Size: 5¼x8¼x3¼". For 120/240 V, 50/60 Hz.
901-4010 ..... Each 108.00 4-Up ..... Each 97.20

15

Microscope and Oscilloscope Cameras

POLAROID® LAND INSTANT MICROSCOPE CAMERA

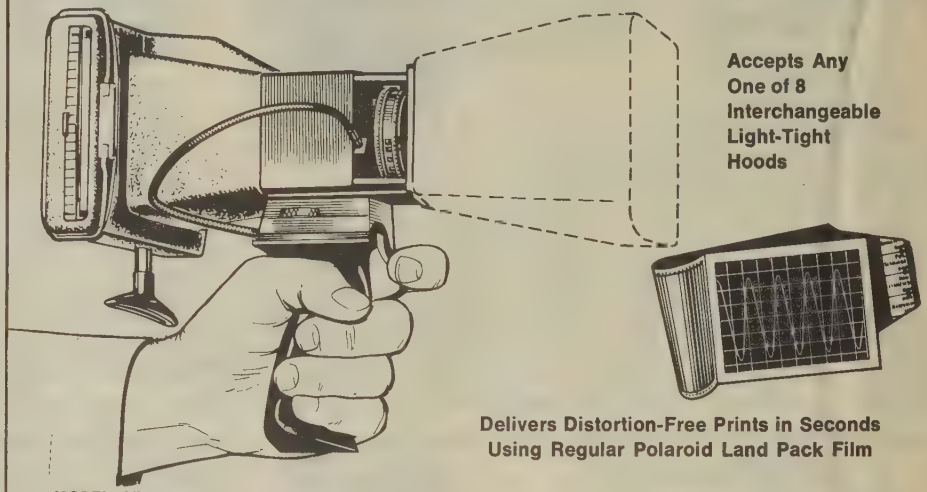


- Delivers Black & White Prints in Seconds—Color Pictures in a Minute
- No Darkroom or Chemicals

MODEL ED-10. Here's the lowest priced instant microscope camera you can buy. Carefully designed to produce quality prints in seconds. Lets you view a microscopic subject one moment and have a permanent record of it the next. Color pictures develop in a minute, black-and-white prints in seconds. Ideal for anyone who uses a microscope in his work. Unit fits all standard microscopes: monocular, binocular or trinocular. A universal adapter attaches to the microscope and the camera slides on over it. This instant camera is so easy to operate that anyone can turn out perfect pictures within minutes—no special photographic skills needed. Simply follow a few easy steps: frame your subject on the scope, slip on the focusing tube and focus, replace the tube with the camera and make the picture. Withdraw film from camera back, peel off finished picture. Made of high-impact, injection molded plastic; no delicate parts. Film packs allow quick, easy loading. Uses Polaroid Land Pack Type 108 color film or Type 107 black-and-white 3000 speed film. Adapter, focusing tube included.
561-1010. Shpg. wt. 2½ lbs. ..... **Each 80.16**

$99.95 FOR AN OSCILLOSCOPE CAMERA THAT WAS $149.95? YOU BET!

And Only Allied Can Make an Offer Like This! This Low-Cost Polaroid® CR-9 Will Add a Professional Touch to Your Photographs with Only a Squeeze of the Finger!



Accepts Any One of 8 Interchangeable Light-Tight Hoods

Delivers Distortion-Free Prints in Seconds Using Regular Polaroid Land Pack Film

MODEL CR-9. Compares in quality and legibility to pictures taken with the most expensive oscilloscope cameras! Almost anyone can turn out a high-contrast picture of a scope display in 15 seconds after only a few minutes of familiarization. There's never a need to recreate a difficult or time-consuming test. The image is sharp and clear, with virtually no distortion of the cathode ray trace or the graticule lines. And the 1:0.85 reduction ratio permits recording an entire 8x10cm format within the print area. Unit weighs less than 24 ounces, can be easily moved from one scope to another.

No focusing required—just place the hood against the display and shoot; unit focuses and frames the shot for you. Exposure controls are easily accessible. Shutter speed and lens opening can be adjusted according to the display brightness and the types of phosphor. Eight interchangeable light-tight hoods are available (below) to fit almost any oscilloscope with 6x8, 6x10 and 8x10cm graticules. Uses standard Polaroid Type 107 black-and-white film pack for eight 3¼x4¼" prints. 3000 ASA equivalent speed lets you photograph phenomena with rise times in the subnanosecond range. Lens is 70mm f/5.6 with stops down to f/8, f/11, f/16, f/22, f/32, f/45. Fixed focus. Depth of field at f/5.6. Of high-impact molded plastic. Shpg. wt. 2 lbs.
561-3301. Was 149.95 ..... **Now 99.95 Each**

Order Hood Below

LAND FILM AND TIMER ACCESSORY

POLAROID TYPE 107 LAND FILM. Black-and-white film for microscope or oscilloscope camera above.
561-3107. 1-49 ..... **Each 4.25** **50-Up** ..... **Each 3.79**

DEVELOPMENT TIMER. Audible-tone timer for use with microscope or oscilloscope camera above. Shpg. wt. 4 oz.
561-3126 ..... **9.62**

LIGHT-TIGHT HOODS FOR OSCILLOSCOPE CAMERA

Attach easily to front of lens, permitting only the light from the cathode ray tube to reach the film. Check tables below to determine hood type needed.

561-3306. Type 33-06. **1-24** ..... **Each 24.95**	**25-49** ..... **Each 22.45**	**50-Up** ..... **Each 19.95**
561-3309. Type 33-09. **1-24** ..... **Each 24.95**	**25-49** ..... **Each 22.45**	**50-Up** ..... **Each 19.95**
561-3310. Type 33-10. **1-24** ..... **Each 24.95**	**25-49** ..... **Each 22.45**	**50-Up** ..... **Each 19.95**
561-3311. Type 33-11. **1-24** ..... **Each 24.95**	**25-49** ..... **Each 22.45**	**50-Up** ..... **Each 19.95**
561-3312. Type 33-12. **1-24** ..... **Each 24.95**	**25-49** ..... **Each 22.45**	**50-Up** ..... **Each 19.95**
561-3315. Type 33-15. **1-24** ..... **Each 24.95**	**25-49** ..... **Each 22.45**	**50-Up** ..... **Each 19.95**
561-3316. Type 33-16. **1-24** ..... **Each 24.95**	**25-49** ..... **Each 22.45**	**50-Up** ..... **Each 19.95**
561-3318. Type 33-18. **1-24** ..... **Each 24.95**	**25-49** ..... **Each 22.45**	**50-Up** ..... **Each 19.95**

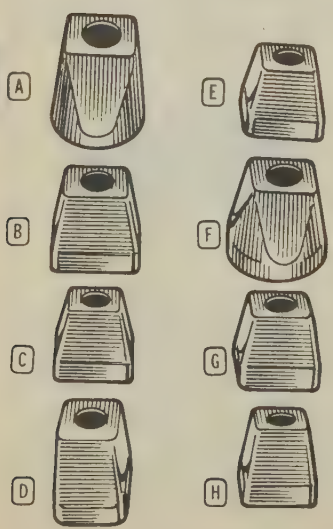
Hoods may be mixed for quantity prices.

LIGHT-TIGHT HOOD SELECTOR GUIDE

Simply find your oscilloscope model number in the listing below, then follow across to the column giving the Allied Stock No. Order from listing above, right.

OSCILLOSCOPE		HOOD		
Manufacturer	Model Number	Stock No.	Inside Dimensions	Fig.
Tektronix	310A, 317, 321A	561-3306	102mm dia. (4" dia.)	A
Telequipment	D43			
Raytheon Cossor	CME 110			
Advance	Os 1000, Os 2000, Os 2000R, Os 2100	561-3309	84 x 122mm (3.3 x 4.8")	B
Tektronix	211	561-3310	87 x 119mm (3.4 x 4.7")	C
Dumont	1050, 1051			
Hewlett-Packard	140B, 141B, 180A, 180B, 181A, 181B, 183B, AN-USM-281A, 1200 Series, 1580A			
Iwatsu	A, C, D			
Raytheon Cossor	CDU 110			
Tektronix	422, 453A, 454A, 491			
Telequipment	S51, D52, D53 Series			
SE Laboratories	EM102	561-3311	87 x 127mm (3.4 x 5.0")	D
Dynamco	7100	561-3312	96 x 120mm	E
Tektronix	527, 529, 549, 561A, 561B, 564, 564B, 567 568, 647A			
Advance	Os 15, Os 25	561-3315	125mm dia. (4.9" dia.)	F
B & K	1460			
Dumont	127mm circular bezel			

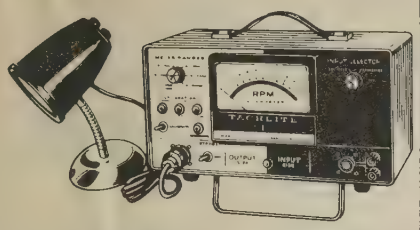
OSCILLOSCOPE		HOOD		
Manufacturer	Model Number	Stock No.	Inside Dimensions	Fig.
Eico	427, 460W, 465W	561-3315	125mm dia. (4.9" dia.)	F
Hewlett-Packard	120B, 122A, 130C, 132A, 140A, 141A, 127mm circular bezel			
Lectrotech	TO-50			
Simpson	466			
Solartron	CD 1400			
Tektronix	502A, 503, 504, 519, 520, 521, 522, 541 Series 543, 544, 545A, 546, 547, 551, 555, 556, 565, 570, 575, 581, 585, 127mm bezel			
Hewlett-Packard	140B, 141B, 182A, 1700 Series	561-3316	100 x 125mm (3.9 x 4.9")	G
Iwatsu	B			
RCA	WO-505A			
Solartron	1740			
Telequipment	54 Series, D67			
Hewlett-Pack.	1330A, 1331A, 1331C	561-3318	116 x 116mm (4.6 x 4.6")	H
Philips	PM 3230, PM 3231			
Raytheon Cos.	150, 4000			
Tektronix	432, 434, 7000 Series (except 7403), 5000 Series			
Telequipment	CT71			



Tachs, Strobes & Pickups, Sound & Temperature Meters

ASSORTED TEST GEAR

STROBOSCOPE-TACHOMETER

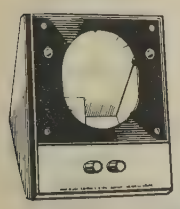


- Features Separate Stroboscope Lamp
- Five Ranges from 100 to 120,000 RPM
- Has 6-in. Taut Band Meter

MODEL 832. A highly accurate strobe with separate connected lamp. Features five speed ranges: 100-1200, 2400, 24,000 and 120,000 rpm. Has 6-in. taut band meter readout, mirror back scale, ½ of 1% of scale accuracy on all ranges. Recorder output, 0.050 V. Field calibration on all scales through divider from line frequency. All solid state. Strobe is Xenon 6500°K color, flashtube No. 10-12. Ranges: 100 to 12,000 (oscillator control on back of lamp or external control); 24,000 ÷2; 120,000÷10. External control only. Flash duration, 8-10 μsec., .25 watt seconds per flash. Flash control by input accepting any P.I. photo or magnetic pickup, .10 to 15 V signal or contactor. Size, 7¾ x 13½ x 7". Shpg. wt. 24 lbs.

894-0832 ..... **Each 492.92**
4-Up ..... **Each 455.00**

MODEL 2100 PORTABLE INSTRUMENT KIT



Complete kit for mounting any 4½" panel meter, to meet specific needs. Rear hole permits mounting a fuse holder as required; nylon plug covers hole when not in use. Kit includes case, panel assembly, legend overlay, two binding posts, nylon plug, hardware, complete assembly instructions. See the complete meter section in this catalog for a complete selection of 4½" meters to choose from. Shpg. wt. 1 lb.

919-7949. 1-4 ..... **Each 11.80**
4-Up ..... **Each 8.85**

SOUND LEVEL METER

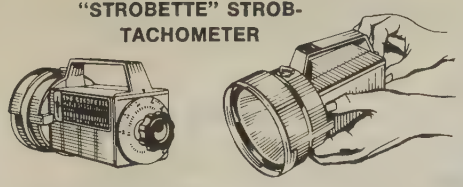
- Monitor Noise at Factories, Construction Sites, Near Highways and Airports, Around Industrial Engines
- Easy to Operate
- No Complicated Controls to Set Up
- Supplied Complete — Absolutely No Extras to Buy

Model WE-130A. Complies with ANSI specification S1.4, 1971, in performance and accuracy as an S3A Special-Purpose Sound-Level Meter. Indicates whether sound levels exceed limits specified by OSHA. No range switches, dials or complex controls — just press the "ON" switch and read the meter. Single color-coded scale, calibrated in audio decibels, shows Safe, Questionable and Unsafe sound levels. Indicates when sound exceeds limits of the Walsh-Healey Act and other applicable restrictions. Range: 70-110 dBA; Frequency Response: "A" weighted; Microphone: Ceramic, omnidirectional; Meter Response Time: Slow; Accuracy, 50°F to 90°F, ±1 dB. Battery Complement: Four 1.5 volt "AA" cells (RCA VS334A or equivalent). Size $6^{7}/_{8}$ x 3 x $1^{15}/_{16}$". Complete with leatherette carrying case with belt loop and shoulder strap, lanyard, batteries and operating manual. Shpg. wt. 00 lbs.

901-4640 ..... **Each 99.00** **4-Up** ..... **Each 89.00**

TACHOMETERS, STROBES AND PICKUPS

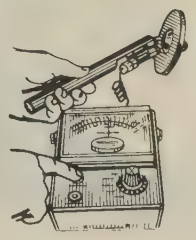
"STROBETTE" STROB-TACHOMETER



MODEL 964. Extremely compact unit. Molded unbreakable plastic case is only 3 x 3 x 7" with 4" dia. reflector. Weighs only 27 ounces; can be carried easily in a tool box. Easy to use, with on-off switch and one dial. Xenon white light (6500° K) delivers flash energy of 0.40 watts-second (Jouels). Stroboscope flashes to 200 to 6000 flashes per minute with duration of approximately 10-25 μsec. Speed rate: 200 to 6000 rpm. Field calibration at 3600 fpm. Bean angle: 80°. Accuracy: 3% or better. 100% solid state circuitry. ¼"-20 tripod socket. For 117 V, 50/60 Hz AC. 40 W max.

894R0964. Shpg. wt. 4 lbs. ..... **Each 124.83**
4-Up ..... **Each 115.00**

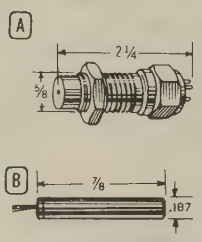
PORTABLE PHOTO TACHOMETER



MODEL 891. Reads speed of motors, engines, grinders, drills, SCR controls without contacting shaft. Direct light from probe on a mark on the shaft. Marking materials furnished. Probe has 24" cable coiled. Four ranges: 0-1000/3000/10,000/30,000 rpm. Accuracy: 1½%. Mirror back scale, taut-band meter. Field calibration. Alum. case, 7½x5½x2½".

894-0891. Shpg. wt. 4 lbs. ..... **Each 169.50**
4-Up ..... **Each 150.00**

MAGNETIC AND PHOTO PICKUPS IDEAL FOR COUNTING



(A) Model 892-120-SXT Magnetic. Generates pulse when ferrous object moves past center probe. Epoxy potted brass case. 120-ohm coil. Output with .005" gap is about 40V p-p at 1000"/second into 100k load.

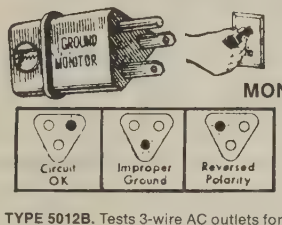
894-0892. Includes 10-32 pin. Shpg. wt. 1 lb. ..... **Each 18.41**

(B) Model 923-200-SXT-6 Magnetic. 12 V p.p at 1000"/sec. .187" dia. x ⅞" stainless steel; two 6" leads.

894-2923. Wt. 3 oz. **Each 13.00**

Silicon cell with solid state cable. Up to 500,000 events Requires 5.5 VDC at 200 mA.

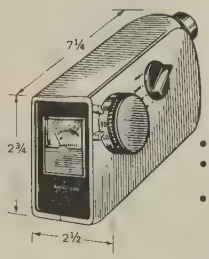
3-WIRE CIRCUIT MONITOR



TYPE 5012B. Tests 3-wire AC outlets for proper ground. Plug into 3-wire receptacle. Lights indicate: Circuit Okay; Improper Ground; Improper Neutral; Reverse Polarity; Reversed Ground and Power; Power is Off. 6 oz.

768-9090 ..... **Each 9.95**

LOW-COST MUSIC AND SOUND LEVEL METER



- Compares With $200 Models
- Ideal for Setting Up Stereo And Public Address Systems
- Reads 60 dB to 116 dB

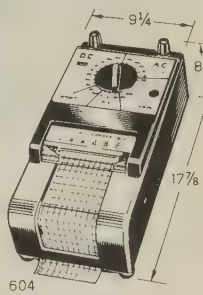
Made by Realistic®

- Protect Your Ears — Find Out How Loud Noise and "Rock" Really Is
- ASA Standard "Fast" or "Slow" Readings
- Output Jack for Oscilloscope Readings

The first low-cost sound level meter to compare favorably with professional-priced instruments. Widely recommended by experts for use in measuring music and other sound levels, indoors or outdoors. Great for musicians, PA experts and industrial people, too. Five ranges cover sound levels found in anything from an average room to the ear-damaging levels found around airports and in subways. Calibrated to ±2 dB at a 74 dB sound level. Frequency response is ±2 dB from 40-14,000 Hz. The built-in mike can even be used separately as a high-quality musical pickup device. Meter is ASA Standard "Fast" or "Slow" for average readings. Silicon solid-state circuitry. High-impact molded case. Only 7¼ x 2¾ x 2½". Requires just one 9-volt battery. Shpg. wt. 3 lbs.

910-4028. Type 33-1028. ..... **Each 49.95**
910-5112. Type 23-464 9-Volt Battery. ..... **Each .49**

RECORDING MULTIMETER



MODEL 604. Features 25 switch selectable ranges, inkless recording of range and value on pressure-sensitive paper. Chart speeds of 1, 3, 12 inches per hour (30, 60 or 90 with gear box below). Includes test leads, two rolls of chart paper. Recording accuracy: ±2.5%. Ranges: DC 0-0.1, 0.5, 2.5, 10, 25, 100, 250, 500 V; 0-50, 250 uA; 0-1, 5, 25 mA; 0-0.1, 0.25, 1 amp. AC: 0-0.2 mA; 0-10, 25, 100. 250, 500 V. 8½x9¼x17⅞". For 115 VAC. Wt. 6 lbs.

919U0615 ..... **Each 343.75**
4-Up ..... **Each 275.00**

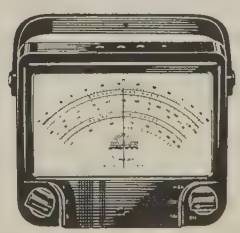
Chart Paper. Box of 10 rolls. Shpt. wt. 2 lbs.
919-2612 ..... **Each 32.50** **4-Up** ..... **Each 26.00**

MODEL 605 MULTICORDER. Inkless recording on pressure-sensitive paper. Chart speeds: 1/3/12 inches per hour. Recording accuracy: ±2.5%. Sensitivity: 666 ohms/volt. Ranges: DC: 0-12, 30, 60 mV; 0-3, 15, 60, 300 V; 0-1.5, 3, 6, 30 mA; 0-.15, 1.2, 6 amps. AC: 0-6, 30, 15, 300, 600 V; 0-3, 15, 60, 300 mA; 0-1.2, 6 A. 9¾x4¾x4". 115 VAC. With test leads, two rolls paper. Wt. 5½ lbs.

919-0620 ..... **Each 368.75**
4-Up ..... **Each 295.00**

Type 02614 Chart Paper. 2.3" x 50'. Box of 10 rolls.
919-2614. 2 lbs. ..... **Each 32.50** **4-Up** ..... **Each 26.00**

Type 02461 AC Clip-on Current Transformer. 30-120-600 amps. Turn ratio 2000:1. Shpg. wt. 2 lbs.
919-2461 ..... **Each 68.13** **4-Up** ..... **Each 54.50**



ACCURATE TEMPERATURE MEASURING INSTRUMENTS

FOR "SIMULTANEOUS" TEMPERATURE READINGS FROM UP TO THREE LOCATIONS!

- Scales Calibrated in Fahrenheit & Centigrade
- Thermistor or Iron-Constantan Thermocouple
- Reads −50° to +1000°F on Big 7" Scale

MODEL 388-3L THERM-O-METER. Takes accurate readings from −50° to +1000°F on 7" scale. Iron-constantan thermocouple. Room temperature compensation. Type 0190 7½-ft. probe. Provision for 3 probes; readings in 3 different areas. Accuracy, ±1½ scale divisions. 6 x $7^{15}/_{16}$ x $2^{15}/_{16}$". With battery

919R0388. 6 lbs. **1-3** .. **Each 134.16** **4-Up** ..... **Each 115.00**

MODEL 0187 SURFACE TEMP. PROBE. Shpg. wt. 1 lb
919-0187. 1-3 ..... **Each 17.80** **4-Up** ..... **Each 15.25**

MODEL 0190 GENERAL PURPOSE PROBE. Shpg. wt. 1 lb
919-0190. 1-3 ..... **Each 13.71** **4-Up** **Each11.75**

MODEL 5262 VINYL CARRYING CASE. For either model.
919-5262. Wt. 1 lb. **1-3** ... **Each 21.00** **4-Up** .... **Each 18.00**

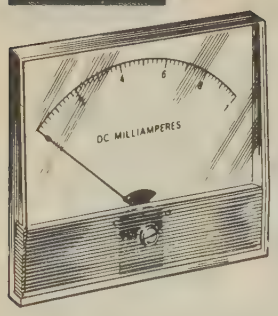
15

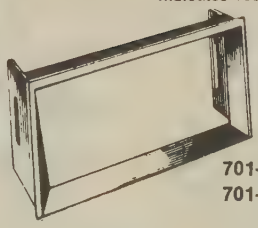
Contact Allied for Even Lower Prices on Larger Quantities

Allied® Quality Panel Meters

Allied® 2½", 3½" & 4½" Panel Meters

Quality-made panel meters featuring full scale accuracy of 2%, shielded meter movements, easy-to-read knife-edge pointer, spring-back jewel design. All have ¼-28x.43" terminals. Mounting studs on 4½" models are 6-32x.53"; 2½ and 3½" models, 4-40x.53". *Indicates rectifier type. Av. shpg. wt. 1 lb.



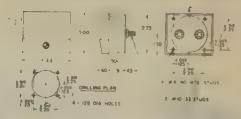


BEZEL MOUNT KIT

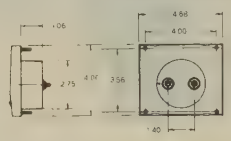
For 3½" and 4½" meters only. Pkg. includes bezel, bracket and screws for quick installation.

701-0470. For 4½" Meters. . . Each 10.42
701-0468. For 3½" Meters. . . Each 6.47

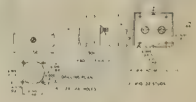
3½" METER DIMENSIONS



4½" METER DIMENSIONS



2½" METER DIMENSIONS



DC MICROAMMETERS

Range	Ohms	2½ METERS Stock No.	EACH 1-9	10-24	25-49	50-up	3½ METERS Stock No.	EACH 1-9	10-24	25-49	50-up	4½ METERS Stock No.	EACH 1-9	10-24	25-49	50-up
25-0-25	3000						701-0230	20.79	18.90	16.25	15.15	701-0309	20.68	18.80	17.00	15.80
0-50	3000	701-0011	18.48	16.80	15.20	14.15	701-0234	19.38	17.62	15.96	14.85	701-0311	20.29	18.45	16.70	15.50
50-0-50	2000	701-0012	16.61	15.10	13.70	12.75	701-0238	17.65	16.05	14.52	13.50					
0-100	2000	701-0013	16.39	14.90	13.50	12.50	701-0242	17.21	15.65	14.15	13.15	701-0315	17.93	16.30	14.80	13.75
100-0-100	600	701-0014	16.06	14.60	13.20	12.30	701-0245	16.85	15.32	13.90	12.90	701-0317	17.65	16.05	14.52	13.50
0-200	600	701-0015	15.51	14.10	12.80	11.90						701-0319	17.32	15.75	14.25	13.25

DC MILLIAMMETERS

0-1	14	701-0020	15.62	14.20	13.30	12.50	701-0250	16.44	14.95	14.05	13.20	701-0321	17.76	16.15	15.05	13.95
0-10	5.0	701-0022	15.62	14.20	13.30	12.50						701-0325	17.76	16.15	15.05	13.95
0-20	2.5	701-0024	15.62	14.20	13.30	12.50										
0-50	1.0						701-0260	18.15	16.50	15.45	14.75					

DC AMMETERS

0-1	.050	701-0001	15.90	14.46	13.60	12.85										
0-5	.010	701-0002	15.90	14.46	13.60	12.85						701-0303	18.15	16.50	15.65	14.80
0-10	.005						701-0210	18.15	16.50	15.45	14.75					
0-15	.0033	701-0004	15.90	14.46	13.60	12.85										

DC MILLIVOLTMETERS

0-100	20											701-0339	18.15	16.50	15.65	14.80

DC VOLTMETERS (1000 Ohms/Volt)

0-15		701-0105	17.71	16.05	14.95	13.80	701-0277	17.76	16.15	15.05	13.95					
0-30		701-0110	17.71	16.05	14.95	13.80	701-0279	17.76	16.15	15.05	13.95					
0-50							701-0281	17.76	16.15	15.05	13.95					
0-150							701-0285	17.76	16.15	15.05	13.95					

AC VOLTMETERS (1000 Ohms/Volts)

0-150*		701-0435	19.25	17.50	16.35	15.50	701-0445	20.07	18.25	16.65	14.85	701-0455	20.42	18.40	16.70	15.70
0-300*							701-0450	20.07	18.25	16.65	14.85	701-0460	20.42	18.40	16.70	15.70

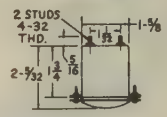
ECONOMICAL METERS WITH ±5% ACCURACY

Model 350 edgewise meter; DC types polarized solenoid design, AC types double-vane repulsion design w/jeweled bearing. Mount in rect. hole, 1²³⁄₃₂" x 1⁷⁄₃₂". Accuracy within ±5%. High temp. polystyrene case. ½" scale lgth. Black escutcheon plate. 6 oz.

Model 850 2½-inch rectangular panel meters have snap-on plastic crystal and an accuracy to within ±5%. DC types polarized-vane solenoid; AC types double-vane repulsion, jeweled bearing. Mt. in 2⁵⁄₃₂" x 2¹⁄₃₂" panel hole. 6 oz.

Model 750 accuracy within ± 5%. DC movements have moving magnet design w/high torque repulsion vane design. Both AC and DC types have jeweled bearings. Polystyrene meter fronts. Mt. in 3½" x 3" panel hole. 6 oz.

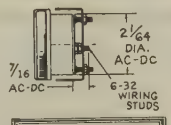
MODEL 350 EDGEWISE METERS

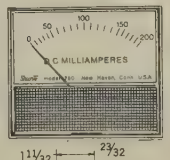


DC MILLIAMMETERS, AMMETERS AND VOLTMETERS

Range	MODEL 350 EDGEWISE Stock No.	EACH 1-9	10-24	25-49	50-up	MODEL 850 RECTANGULAR Stock No.	EACH 1-9	10-24	25-49	50-up	MODEL 750 RECTANGULAR Stock No.	EACH 1-9	10-24	25-49	50-up
0-1 mA DC	701-3300	7.95	6.36	5.30	4.54	701-8336	8.25	6.60	5.50	4.71	701-7336	9.00	7.20	6.00	5.14
0-5 mA DC	701-3302	7.28	5.82	4.85	4.15	701-8302	6.00	4.80	4.00	3.42					
0-50 mA DC	701-3306	7.28	5.82	4.85	4.15	701-8306	6.07	4.86	4.05	3.47					
0-100 mA DC	701-3307	7.50	6.00	5.00	4.28	701-8307	6.07	4.86	4.05	3.47					
0-200 mA DC						701-8309	6.22	4.98	4.15	3.56	701-7309	9.22	7.38	6.15	5.27
0-300 mA DC						701-8310	6.22	4.98	4.15	3.56					
0-500 mA DC						701-8312	6.22	4.98	4.15	3.56					
0-1 A DC						701-8201	6.07	4.86	4.05	3.47					
0-5 A DC	701-3203	7.50	6.00	5.00	4.28	701-8203	6.07	4.86	4.05	3.47					
0-10 A DC	701-3205	7.50	6.00	5.00	4.28	701-8205	6.07	4.86	4.05	3.47	701-7205	7.95	6.36	5.30	4.54
0-15 A DC						701-8206	6.22	4.98	4.15	3.55					
0-25 A DC						701-8207	6.52	5.22	4.35	3.73					
30-0-30 A DC						701-8215	6.67	5.34	4.45	3.81					
50-0-50 A DC						701-8216	6.97	5.58	4.65	3.98					
0-3 V DC						701-8102	6.07	4.86	4.05	3.47					
0-5 V DC	701-3104	7.65	6.12	5.10	4.37	701-8104	6.07	4.86	4.05	3.47					
0-10 V DC	701-3107	7.65	6.12	5.10	4.37	701-8107	6.23	4.98	4.15	3.55					
0-15 V DC	701-3108	7.65	6.12	5.10	4.37	701-8108	6.23	4.98	4.15	3.55	701-7108	7.95	6.36	5.30	4.54
0-25 V DC						701-8109	6.37	5.10	4.25	3.64	701-7109	8.25	6.60	5.50	4.71
0-150 V DC											701-7115	8.63	6.40	5.75	4.92

MODEL 850 2½-INCH RECTANGULAR

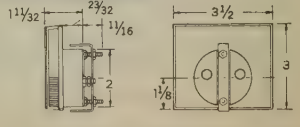




MODEL 750 3½-INCH RECTANGULAR

AC VOLTMETERS, AMMETERS AND MILLIAMMETERS

0-10 V AC						701-8403	7.95	6.36	5.30	4.54					
0-15 V AC						701-8404	7.95	6.36	5.30	4.54					
0-150 V AC	701-3406	8.55	6.84	5.70	4.88	701-8406	8.33	6.66	5.55	4.75	701-7406	9.90	7.92	6.60	5.65
0-1 A AC						701-8501	7.73	6.18	5.15	4.41					
0-5 A AC						701-8503	7.95	6.36	5.30	4.54					
0-10 A AC						701-8504	7.73	6.18	5.15	4.41					
0-500 mA AC						701-8605	8.32	6.66	5.55	4.75					



Allied Meters Are an Exclusive Product of Allied Electronics

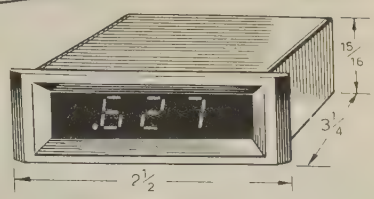
Panel Meters

PM-3 THREE-DIGIT PANEL METERS—CHOICE OF 4 RANGES

NEW!

Here's a unique, full three-digit panel meter for measuring DC voltages. Low-cost, highly accurate . . . gives ±0.1% of full scale in comparison to pointer meter accuracies which fall in the range of 1 to 3%! Compact too! It's edgewise configuration reduces height to less than one inch to allow for easy stacking in minimum space. And all you need to power it is a 5V power supply! Has automatic zeroing to eliminate zero drift. Decimal location can be changed to up to 3 positions. Even the range can be changed by the simple addition or removal of one to three resistors.
Contains one potentiometer to allow dynamic scale expansion as desired for readings of transducer signals in units other than volts (lbs, degrees, etc.). **Four ranges to choose from:** 1V, .000 to .999VDC; 10V, 0.00 to 9.99VDC; 100V, 00.0 to 99.9VDC; 1000V, 000 to 999VDC. **Accuracy:** —0.1%. **Speed:** 2 readings/sec. **Oper. Temp.:** 0°C to 66°C. **Power:** 5VDC (5%) @ 150mA, 0.5W. **Control:** Scale factor; screwdriver adjust at rear. **Display:** LED, red, 0.31" H. Wt. 4 oz.

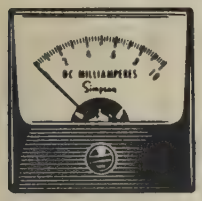
Stock No.	Mfr's Type	Volts	EACH 1-4	EACH 5-9	EACH 10-Up
667-2000	39-250-1	1	85.00	76.50	68.00
667-2002	39-250-2	10	85.00	76.50	68.00
667-2004	39-250-3	100	85.00	76.50	68.00
667-2006	39-250-4	1000	85.00	76.50	68.00



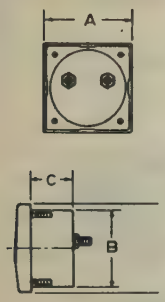
"WIDE-VUE" PANEL METERS

- **Wide-Angle Readability**
- **Maximum Meter Protection**

A wide range of "wide-vue" panel meters for industrial applications. "Wide-vue" panel meters have specially formulated plastic covers for wide-angle readability and maximum protection. Especially useful for applications which require instant and accurate readings. Those models which have 3½" meters have scales which are ½" longer than conventional types. All meters have "self-shielded" movement. AC milliammeters and ammeters are calibrated for use on 25 Hz through 800 Hz. All other AC meters have iron-vane movements.



Terminals are ¼-28 studs with hex nuts. Accuracy: ±2% of full scale, except Rectifier Types with an accuracy of ±3% of full scale. For exact meter dimensions of "Wide-vue" panel meters on this and facing page, see "Meter Dimensions" below. Av. shpg. wt. 1 lb.



METER DIMENSIONS

Mfr's Type	A Inch	B Inch	C Inch
728T	8.00	3.00	1.23
1227	2.46	2.17	1.06
1247	2.47	2.17	1.06
1257	2.47	2.17	1.06
1327	3.25	2.73	1.08
1329	4.68	2.75	1.08
1347	3.25	2.73	1.08
1349	4.68	2.75	1.08
1357	3.25	2.73	1.08
1359	4.68	2.75	1.08
1379	4.68	2.75	1.68

AC VOLTMETERS (See Below for dimensions)

Range	Model 1257—2½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-Up	Model 1357—3½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-Up	Model 1359—4½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-Up
0-50									918-3881	29.22	26.25	23.62
0-150	918-2983	26.16	23.55	21.19	918-3783	28.05	25.20	22.68	918-3883	29.89	28.85	25.96
0-300									918-3886	29.89	26.85	25.96

AC AMMETERS (See Below for dimensions)

Range	Model 1257—2½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-Up	Model 1357—3½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-Up	Model 1359—4½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-Up
0-5					918-3704	25.88	23.25	20.92	918-3804	26.55	23.85	21.46
0-10	918-2905	25.00	22.50	20.25					918-3805	26.55	23.85	21.46
0-25	918-2907	25.00	22.50	20.25	918-3707	25.88	23.25	20.92	918-3807	27.55	24.75	22.27
0-50	918-2909	25.00	22.50	20.25					918-3809	27.55	24.75	22.27

DC VOLTMETERS

15-300V units 1000Ω/V. 500V units 2000Ω/V.

Range	Model 1227—2½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-up	Model 1327—3½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-up	Model 1329—4½" Stock No.	EACH 1-9	EACH 10-24	EACH 25-up
0-15					918-3278	28.55	25.65	23.08				
0-25	918-2579	27.55	24.75	22.27								
0-50	918-2581	27.55	24.75	22.27								
0-300					918-3286	31.06	27.90	25.11	918-3486	28.55	25.65	23.08

DC MICROAMMETERS

Range	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up
0-50					918-3229	33.90	30.45	27.40				
0-100									918-3430	34.57	31.05	27.94
0-500					918-3232	28.05	25.20	22.68				
500-0-500					918-3236	27.05	24.30	21.87				

DC MILLIAMMETERS

Range	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up
0-1					918-3250	26.72	24.00	21.60	918-3450	28.55	25.65	23.08

DC AMMETERS

1227, 1327, 1329 are self-contained thru 50A. *50mV and require external shunt.

Range	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up	Stock No.	EACH 1-9	EACH 10-24	EACH 25-up
0-10	918-2505	26.39	23.70	21.33					918-3405	29.89	26.85	24.16
0-30					918-3208	27.55	24.75	22.27	918-3408	29.89	26.85	24.16
0-50	918-2509	26.39	23.70	21.33	918-3209	27.55	29.75	22.27	918-3409	29.89	26.85	24.16
*0-100									918-3411	29.89	26.85	24.16
*0-200									918-3413	29.89	26.85	24.16

MODEL 1379 WIDE-VUE WATTMETERS

Dynameter-type meters for measuring DC and single-phase power with frequencies to 250 Hz. Use with power factors below 50%. Calibrated for either magnetic or non-magnetic panels and for frequency range from 25 to 125 Hz. Meter accuracy ±2% of full scale reading.

Stock No.	Range Watts	Max. Amps	Max. Volts	EACH 1-9	EACH 10-24	EACH 25-Up
918-3956	0-150	2.0	150	68.63	61.65	55.48
918-3960	0-1500	10.0	300	73.14	65.70	59.13
918-3961	0-3000	20.0	300	74.14	65.70	59.13

PORTABLE SHUNTS FOR DC AMMETERS

50 mV. 0.65 ohm. With 5-ft. leads.

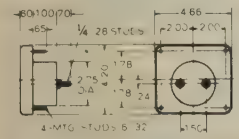
Amps	Stock No.	Type	1-9 Ea.	10-24, Ea.	25-Up, Ea.
75	918-6711	6711	15.36	13.80	12.42
100	918-6713	6713	15.36	13.80	12.42
200	918-6715	6715	15.36	13.80	12.42

MODEL 29 THERMOELECTRIC PYROMETER

Model 3324

- **Easy-to-Read Scale, Precise Tracking**
- **Centigrade and Fahrenheit Graduations**

Precision-engineered for a lifetime of accurate, dependable performance. Easy-to-read 4½" pyrometer features high sensitivity, ruggedness and precise tracking. Compensates for ambient temperature changes and includes copper circuit compensation. Scales are marked with both Fahrenheit and Centigrade graduations. Thermocouples listed in table below are iron-constantan and calibrated to exactly 10 ohms, ±1% per table. Shipping weight is 2 pounds.



WHEN A MERCURY THERMOMETER WON'T WORK . . . DO IT WITH A THERMOELECTRIC PYROMETER!!

Stock No.	Range °F	Range °C	Ext. Ohms	Sens. in mA	EACH 1-9	EACH 10-24	EACH 25-Up
918-0527	0-500	−20-+260	10	.35	49.50	44.55	40.10
918-0528	0-750	−20-+400	10	.30	49.50	44.55	40.10

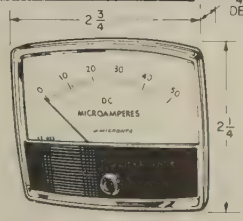
THERMOCOUPLES

GC indicates Glass Cloth.

Stock No.	Resis. (ohms)	Over-braid	Lgth. (in.)	Gauge	EACH 1-9	EACH 10-24	EACH 25-Up
918-4696	10	GC	137	24	11.75	8.80	6.60
918-4697	10	GC	34	30	9.75	7.40	5.55

PRECISION PANEL METERS

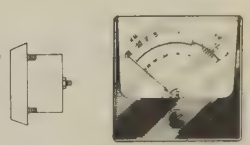
- **D'Arsonval Movement**
- **Linear Dial Scales**
- **Perfect for Hobbyists**



Most popular types for builders, experimenters and hobbyists. Long lasting, dependable construction. Clear plastic wrap-around cover for wide-angle viewing. D'Arsonval movement with jeweled bearing. Linear dial scale. Available in two current ranges. Also available in VU type. Requires 1⅞" mounting hole. Size 2¾ x 2¼ x 1¼".

910-4555 Type 22-051. 0-50 μA, DC.....Each 7.95
910-4560 Type 22-052. 0-1 mA, DC.....Each 7.95
910-4565 Type 22-053. VU Meter. —20 to +3, 20-20K, ±1 dB "0"VU=0.8V rms. Internal rectifier. 4000 ohms....**Each 7.95**

WIDE-"VU" METER



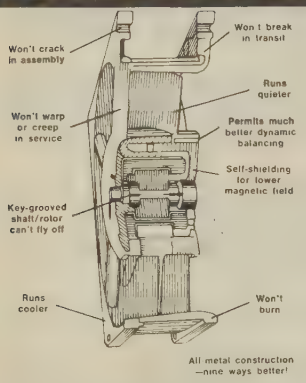
Wide-Vue meters for broadcast and communications use. Meets all electrical and ballistic specifications of Bell Laboratories and ANSI. Shows volume level in VU. Type A scale stresses level in VU for monitoring wire lines. Dimensions: See meter dimension table above. Av. shpg. wt. 1 lb.

Stock No.	Mfr's Type	"A" Scale	EACH 1-9	EACH 10-24	EACH 25-Up
918-3596	1347	3½"	44.17	39.75	35.77

Mini, Sub-Mini Fans & Cross Index

FAN CROSS INDEX

Pamotor	Amphenol	Rotron	Howard	IMC	Airtrol
4800A	390-457A1-10 125XL-182-11115	WR2A1/WR2H1	3-90-8109 3-15-2450	WS2107F1-2	Box 75
4500C/4500P	390-450A1-30 390-458A1-11	M747	3-15-4450 3-90-8010 3-90-8040 3-15-3450 3-90-8011 3-90-8041	WS2107F	Box 110
4600/4600P	760-12SXR-182-11115 390-459-A1-13	CT3A2		WS2107F-110	Box 110
8500C/8500P	390-301A1-2345 390-300A1-2346	SP2A2/SP2A2L		MWS2107FL	
8550C	390-301A1-2345 390-300A1-2346	SP2A3/SP2A3L		MWS2107FL-3	
7500S	760-122VF-182-11115				
7550S	760-122VF-181-11220				
4650	390-458A2-12 390-459A2-14	CT3A52. M756	3-90-8136 3-90-8133 3-15-3451 3-90-8134 3-90-4451	WS2107FL-6 WS2107FL-3	
4500C	390-451A1-2329 125XR-182-11115			WS2107FL	Box 110
8500C	126LF-182-11115			MWS2107FL-2	
8550C	126LF-181-11220			PWS2107FL-3	
4506A	760-125XR-182-11115	CT3B2/S747		BS2107FL	
7506		MA2B4			
4110				WS2107F-24	
8506				MBS2107FL	
4506A		M747BB			

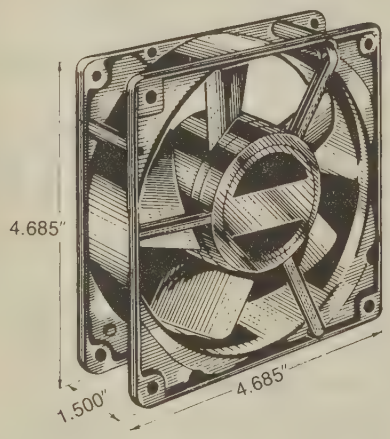

Won't crack in assembly
Won't break in transit
Runs quieter
Won't warp or creep in service
Permits much better dynamic balancing
Self-shielding for lower magnetic field
Key-grooved shaft/rotor can't fly off
Runs cooler
Won't burn
All metal construction —nine ways better!

PENTAFLOW™

Premium Grade Miniature Fans give maximum performance at minimum cost, ounce-for-ounce the best investment for your cooling dollar. Features include all-metal construction for greater durability and heat dissipation; low noise and vibration due to precision machining and balancing; patented "inside-out" motor configuration to deliver greater torque and power at reduced operating temperature and to provide reduced electromagnetic radiation; maintenance-free bearing system of broached, sintered bronze; impulse welded steel impellers for greater strength and reduced noise; and a five-year warranty to assure you of no loss due to defects in material and workmanship.

FIVE YEAR WARRANTY

AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP

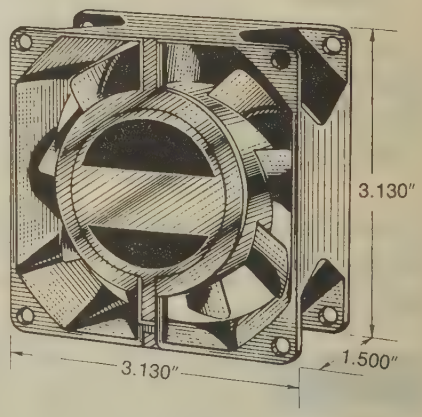


4600P MINIATURE FAN

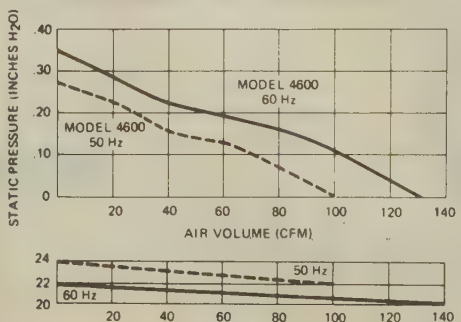
Provides high airflow at high back pressures and low noise level. Gives extra margin required for applications in which higher packaging densities may be encountered, such as in tightly packed computers, power supplies, process controls, airborne consoles, and electronic RF/Microwave instrumentation. All metal construction.

Specifications: Air flow: 120 CFM, SIL (Speech Interference Level): 37.5 dB, Rated Life (continuous operation): 100,000 hours @ 20°C. Wt. 20 oz.

Stock No	Mfr's Type	EACH			
		1-9	10-24	25-49	50-Up
600-4601	4600P	26.15	23.45	21.50	20.40



Model 4600P

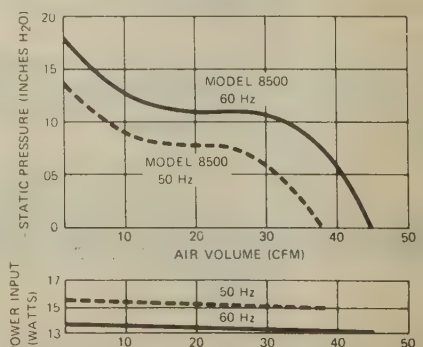


8500P SUB-MINIATURE FAN

Ultra-quiet fan provides 20% more air flow in free air and almost 3 times more air flow at moderate back pressures than other comparable fans. Ideal fan for cooling portable equipment, standard 3½" rack applications and other uses where size is a limiting factor and low noise is highly desirable. Typical applications include computer terminal equipment, medical instrumentation, audio–visual equipment, bench instruments, desk top instruments, and broadcast studio consoles. **Specifications:** Air Flow: 43 CFM, SIL (Speech Interference Level): 22.3 dB, Rated Life (continuous operation): 100,000 hours @ 20°C. Wt. 18½ oz.

Stock No.	Mfr's Type	EACH			
		1-9	10-24	25-49	50-Up
600-8501	8500P	25.40	22.70	20.85	19.75

Model 8500P



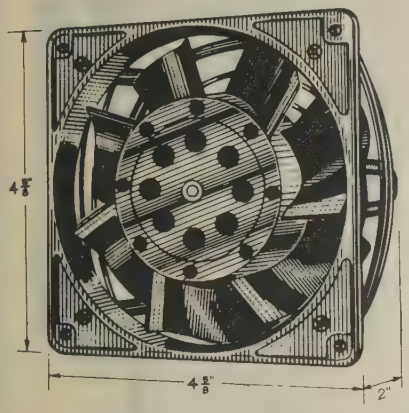
All Fans on Page are U/L Recognized and Meet CSA/IEC Specifications

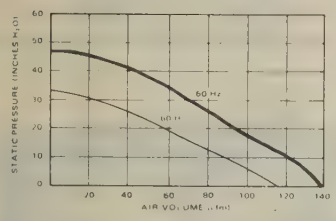
Air Cooling Fans

COOLING FANS

All Fans on This Page are U/L Recognized, Meet IEC Specs and Designed to Meet CSA Specifications.

MODEL 5500 MINIATURE COOLING FAN



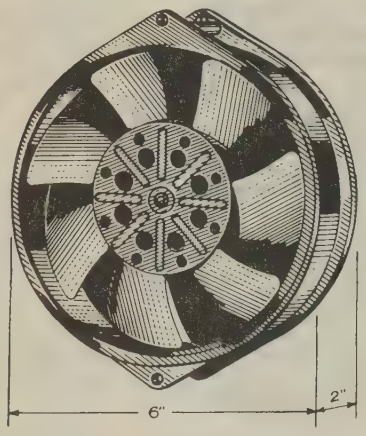


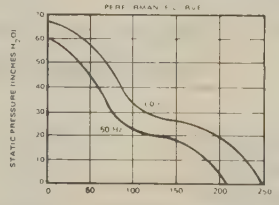
- **Designed for Silent Performance**
- **Efficient Design For High Air Flow**
- **Stable Linear Performance**

Highly efficient fan. Specially designed for high air flow, low noise level applications in industrial, military and commerical uses. Unique aerodynamic design for the highly desirable combination of high air delivery and low acoustical disturbance. Stable linear performance within its full range of pressure capabilities. Also has the packaging advantages of radial-impeller combination. Rated life 100,000 hrs. at 20°C continuous operation.

Stock No.	Mfr's Type	VAC	EACH 1-9	10-24	25-49	50-Up
600-5500	5500	115	37.15	33.20	30.45	28.90

7500 SERIES MINIATURE AXIAL FANS





- **For Low Noise Level, Very High Air Flow**
- **Designed for High Temperature Applications**
- **Rated Life 100,000 Hrs. at 20°C Continuous**

Model 7500S. Miniature axial fan. Specially designed for very high air flow and low noise applications.

Model 7506. Miniature axial fan. Designed for high temperatures, up to 85°C. Very high air flow. For low noise applications. Ball bearing construction.

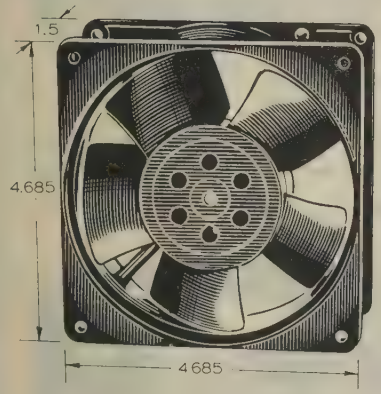
Excellent for a wide variety of electronic equipment ranging from sophisticated test gear to elevator control equipment. Uses include laboratory, industrial and military communications equipment, industrial control equipment, sound systems, telephone equipment; basically, these miniature axial fans are suitable in practically any industrial, military or commercial application requiring an extremely high performance fan.

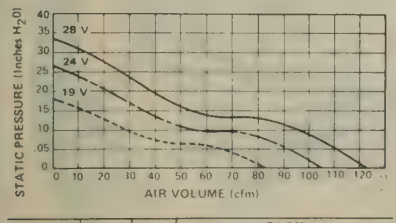
Stock No.	Mfr's Type	VAC	EACH 1-9	10-24	25-49	50-Up
600-7500	7500S	115	43.84	39.15	35.95	34.10
600-7506	7506	115	68.85	61.65	56.65	53.65

NEW!

MODEL 8110 MINIATURE AXIAL FAN

DC TYPES





- **Designed for Highly Reliable DC Performance**
- **Rated Life 20,000 Hrs. at 85°C**
- **Offers Greater Air Flow, Reduced Noise Level**

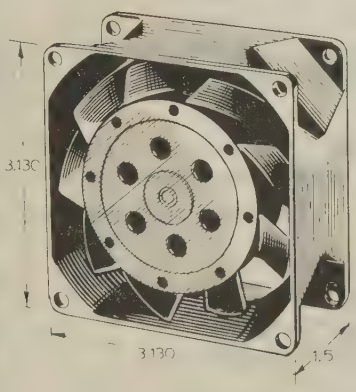
Engineered to tackle specialized applications requiring highly reliable DC performance. May be used anywhere that movement of air is required within a DC application. Power draw at maximum back pressure is approximately 20% of that required in AC units. Develops close to zero magnetic radiation and no RF noise. Designed to operate from 19-28 VDC, the Model 8110 requires no external inverter. Its brushless DC motor is polarity protected to avoid accidental damage and costly down time. May be easily mounted in series for 48 VDC operation with absolutely no need for equalizing circuitry. Typical applications include mobile radio equipment, shipboard computers, power supplies. Special moisture resistant finish.

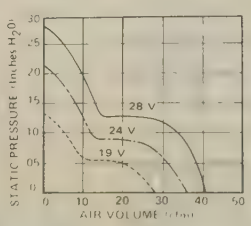
Stock No.	Mfr's Type	VDC	EACH 1-9	10-24	25-49	50-Up
600-8110	8110	24	66.25	59.55	55.20	51.60

NEW!

MODEL 4110 MINIATURE AXIAL FAN

DC TYPES





- **For Use Wherever Highly Reliable DC Performance Is Essential**
- **Rated Life 20,000 Hrs. at 85°C**
- **20% of The Power Draw of Similar AC Units**

Ideal wherever the movement of air is required within a DC powered application. Common use includes mobile radio equipment, shipboard computers, airborne applications and communications systems where 48 VDC is normally available. Offers a greater air volume, reduced noise level and reduced power draw. At maximum back pressure, the power draw is approximately 20% of that required in AC units. Develops close to zero magnetic radiation and no RF noise, assuring the pure signals needed for critical airborne and shipboard use. May be used in series for 48 VDC requirements with no need for equalizing circuits. Designed to operate at 19-28 VDC with no external inverter. Brushless motor is polarity protected. Special moisture resistant finish.

Stock No.	Mfr's Type	VDC	EACH 1-9	10-24	25-49	50-Up
600-4110	4110	24	66.25	59.55	55.20	51.60

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Air Cooling Fans

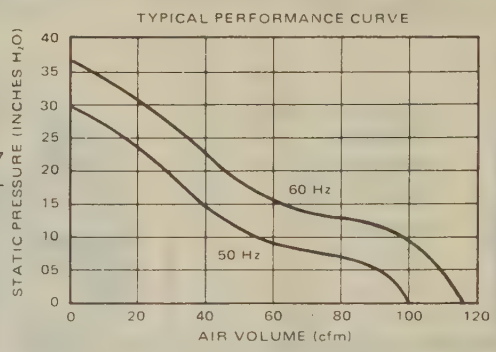
All Fans on This Page are U/L Recognized, Meet IEC Specs and Designed to Meet CSA Specifications

4500 SERIES MINIATURE AXIAL FANS

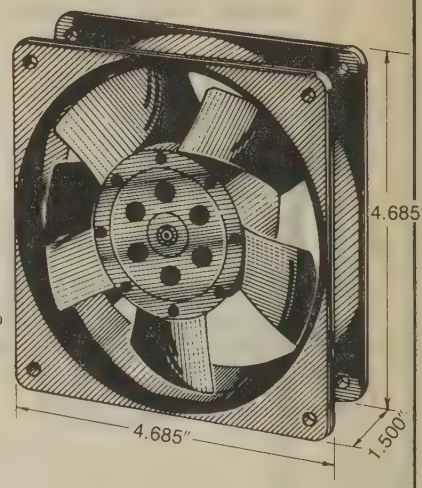
- **High Air Flow—Low Noise Level**
- **High Performance Fan**
- **Maximum Cooling Power**

Model 4500C. Miniature axial fan. Delivers 117 cfm at noise level of less than 31.5 db SIL (Speech Interference Level). Specially designed for high air flow, low noise applications in a wide variety of electronic applications, such as computers, laboratory and office machines, industrial and military communications equipment, industrial control equipment, sound systems, power supplies, telephone equipment, etc.

Model 4506A. Miniature axial cooling fan. Designed to operate at an ambient temperature of 85°C. Model 4506A is designed for high air flow, low noise applications such as diffusion furnaces and other equipment requiring fans to operate in an exhaust stream. Ball bearing construction.



Stock No.	Mfr's Type	VAC	EACH 1-9	10-24	25-49	50-Up
600-4500	4500C	115	17.40	15.60	14.30	13.55
600-4506	4506A	115	30.85	27.60	25.35	23.95

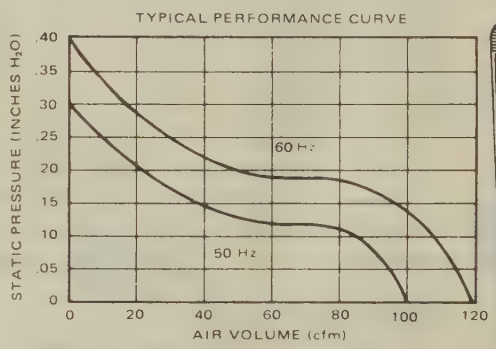


4600 SERIES SHADED-POLE MINIATURE FAN

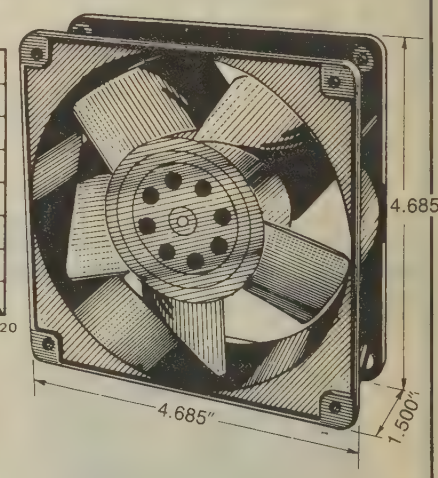
- **High Performance Fan**
- **Maximum Cooling Power**
- **More Air with Less Noise**

Combines the features of extended life with high air flow delivery at low noise levels. This unit is particularly suitable for delivering maximum cooling power to a wide variety of electronic equipment including computers, memory banks, power supplies, process controls, electronic instrumentation and other industrial and commercial applications.

Delivers 120 cfm at a noise level of less than 37.5 SIL (Speech Interference Level). 4⅛" universal mount. Over 100,000 hours of continuous operation in normal room temperature. Heavy duty plug-in terminals (also solderable — #18 AWG wire). 115–125 VAC, 50/60 Hz, 3100 RPM, 20 watts. Wt. 21 oz.



Stock No.	Mfr's Type	VAC	EACH 1-9	10-24	25-49	50-Up
600-4600	4600	115	20.40	18.30	16.80	15.90
600-4650	4650	230	20.40	18.30	16.80	15.90

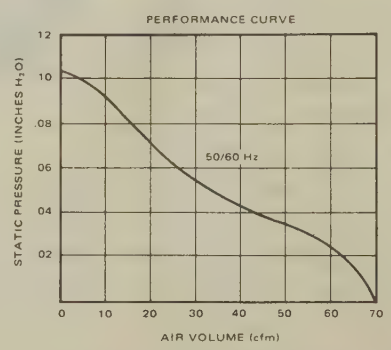


MODEL 4800 SHADED POLE MINIATURE AXIAL FAN

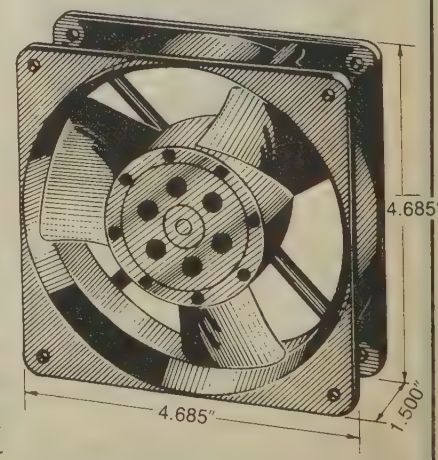
- **More Air at Less Noise**
- **For General Cooling Purpose**
- **Designed for Silent Performance**

Shaded pole miniature axial fan. Outstanding addition to the field of moderate air flow, extremely low-noise fans intended for general cooling purposes. Specially designed for silent performance with a noise level of less than 22.5 db SIL (Speech Interference Level).

Delivers 70 cfm of air, making it ideal for a wide variety of applications such as hi-fi/stereo equipment, television equipment, and medical or office equipment. Comparison with other fans will show the Model 4800 to be far superior in performance. It provides more air at less noise than any conventional metal or plastic fan of its size, and at a lower cost.



Stock No.	Mfr's Type	VAC	EACH 1-9	10-24	25-49	50-Up
600-4800	4800A	115	19.35	17.30	15.90	14.95

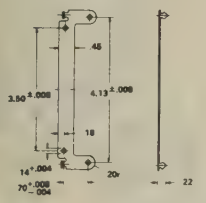


Cooling Fans and Accessories

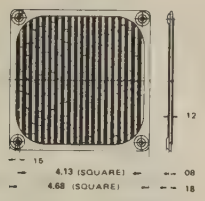
All Fans on This Page are U/L Recognized, Meet IEC Specs and Designed To Meet CSA Specifications.

ACCESSORIES FOR COOLING FANS

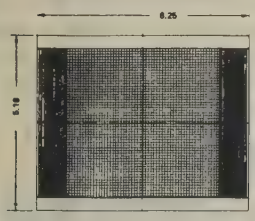
A Bracket No. 5501



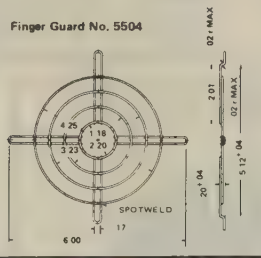
B Filter No. 5502



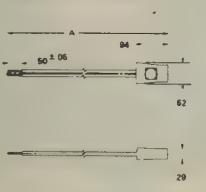
C Framework and Screen No. 5503



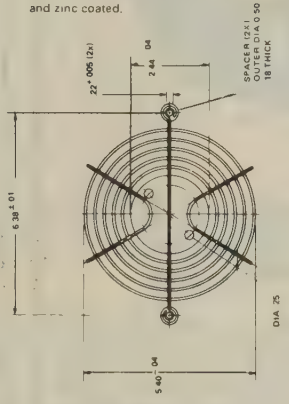
D Finger Guard No. 5504



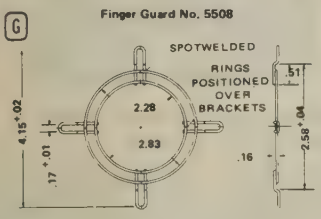
E Plug and Lead No. 5505



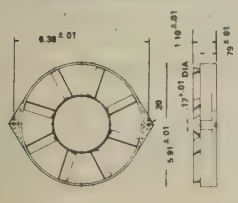
F Part No. 5506 Finger Guard – large
Suitable for use with Series 7500 fans. Constructed of steel wire, spot welded and zinc coated.



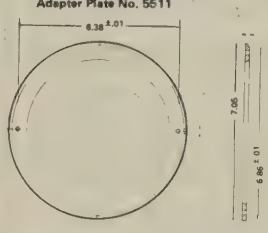
G Finger Guard No. 5508



H Guide Vane Ring No. 5509



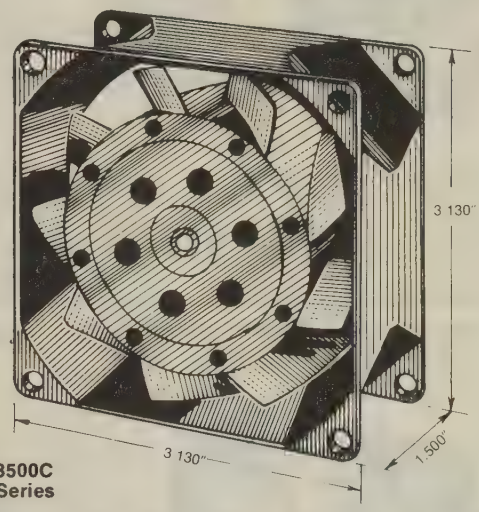
J Adapter Plate No. 5511



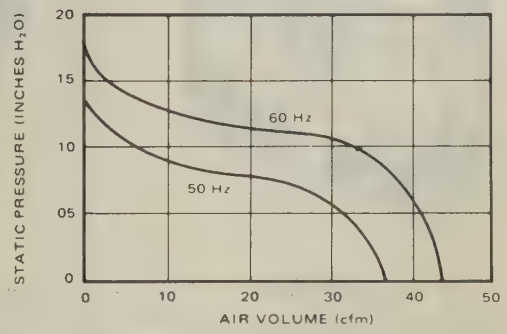
ACCESSORIES PRICE LIST

Stock No.	Type	Description	Fig.	Fits Fan Series	EACH 1-99	EACH 100-249	EACH 250-Up
600-5501	5501	Mtg. Bracket	A	2000, 4500, 4600, 4800, 5500	1.38	1.10	.70
600-5502	5502	Filter	B	2000, 4500, 4600, 4800, 5500	3.88	3.10	2.20
600-5503	5503	Metal Screen	C	2000, 4500, 4600, 4800, 5500	6.63	5.30	3.80
600-5504	5504	Finger Guard	D	2000, 4500, 4600, 4800, 5500	3.63	2.90	2.05
600-5505	5505	Plug & Cord	E	4500, 4600, 4800	1.50	1.20	.85
600-5506	5506	Finger Guard	F	7500	6.50	5.44	3.70
600-5508	5508	Finger Guard	G	8500	2.50	2.00	1.45
600-5511	5511	7" Adapter	J	7500	4.38	3.50	2.50

8500C SUB-MINIATURE SHADED-POLE AXIAL FANS



8500C Series



- **Rated Life 100,000 Hrs. @ 20°C**
- **Compact—⅛" Thinner Than Other 3⅛" Fans**
- **20% More Air Flow In Free Air**
- **Ideal For Tight Dimension Applications**

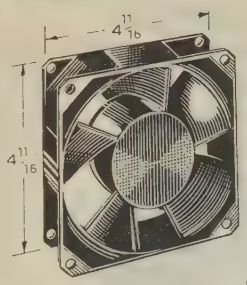
Designed for general cooling purposes. Ideal for tight dimension applications where performance and cost are prime considerations. Ultra-compact—⅛" thinner than other 3⅛" fans. Provides 20% more air flow in free air than comparative fans and almost 3 times the air flow at back pressures. Even with this high airflow capability it has only one-half the noise level, making them ideal for portable equipment or any application where size is a limiting factor and low noise is desirable. Unmatched noise level of 22.3 dB SIL. Provides more than 20,000 lubrication free hours of continuous duty at an ambient temperature of 85°C. For applications with high temperature environments such as power supplies and other equipment requiring fans to operate in an exhaust stream. Standard mounting dimensions for EIA 3½" rack panels. All metal construction ensures longer life. 3200 rpm. Wt., 18½ oz.

Stock No.	Mfrs. Type	VAC	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
600-8500	8500	115	19.60	17.55	16.10	15.25
600-8506	8506*	115	31.60	28.30	25.95	24.60

(*) High temperature, ball bearing versions.

Axial Cooling Fans

760 SERIES 4-11/16" AXIAL FANS

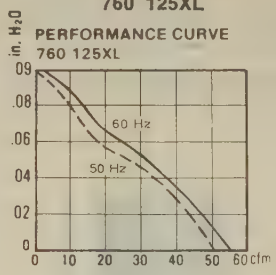


- **Provide the highest cooling power for their size**
- **Balanced lightweight impeller assures quiet air flow with less bearing wear**
- **Precision built with ball bearing construction**
- **Durable aluminum frame**

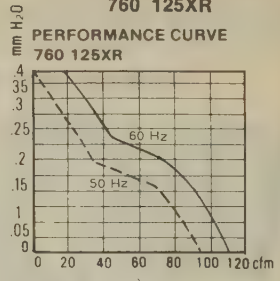
MODEL 125XR/XL

Interchangeable with other 4 11/16" fans but with more cooling capacity. Delivers 80 CFM @ .15" H_2O—as much as two weaker fans. Ball bearing construction provides twice the operating life of sleeve bearing fans. Durable aluminum frame acts as heat sink. 50/60 Hz operation. UL component recognized. XL model runs at half speed for reduced noise. **Type 182,** for 115V; **Type 181,** for 220V. Wt., 20 oz.

PERFORMANCE CURVE 760 125XL

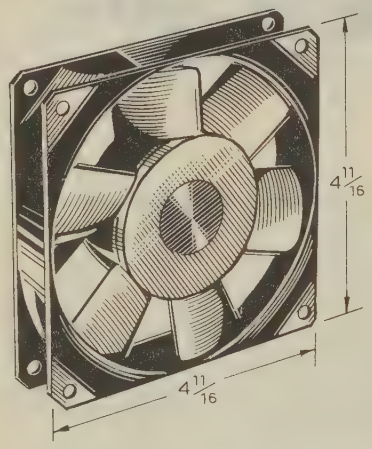


PERFORMANCE CURVE 760 125XR



Stock No.	Mfr's Type	EACH			
		1-9	10-24	25-49	50-Up
612-0100	760 125XR-182-11115	23.50	21.50	20.10	18.70
612-0120	760 125XR-181-11220	23.50	21.50	20.10	18.70
612-0110	760 125XL-182-11115	24.95	22.90	21.40	19.90
612-0125	760 125XL-181-11220	24.95	22.90	21.40	19.90

760 SERIES 1" THIN AXIAL FAN

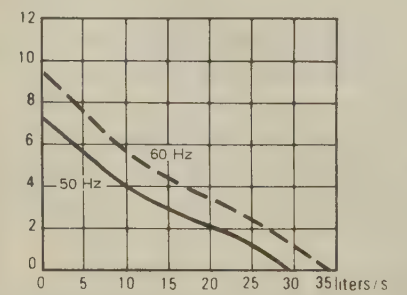


MODEL 98XH

- **Only 1" thin for those really tight applications**

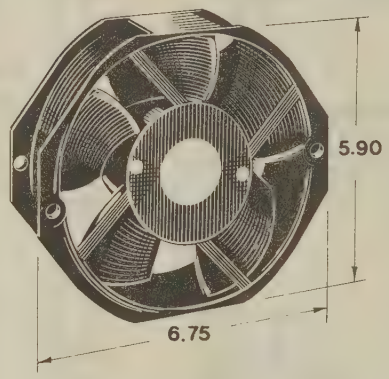
Will fit where there isn't enough space for standard fans. Same mounting centers as standard 4 11/16" fans. Ball bearing and aluminum frame for longer life. UL component recognition. 50/60 Hz operation. **182 model** for 115V. Ideal for computer, test equipment and power supply applications. Shpg. wt., 13 oz.

PERFORMANCE CURVE 760 98XH



Stock No.	Mfr's Type 760 98XH-	EACH			
		1-9	10-24	25-49	50-Up
612-0130	182-11115	24.95	22.90	21.40	19.90

760 SERIES AXIAL FAN

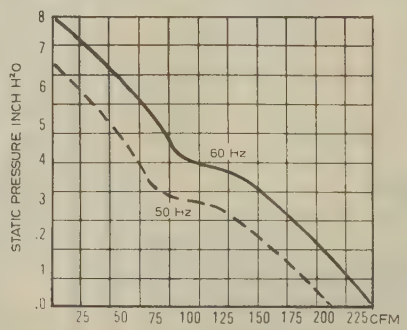


MODEL 122VF

- **Interchangeable with MAJOR/7500**
- **Economical shaded pole motor construction**

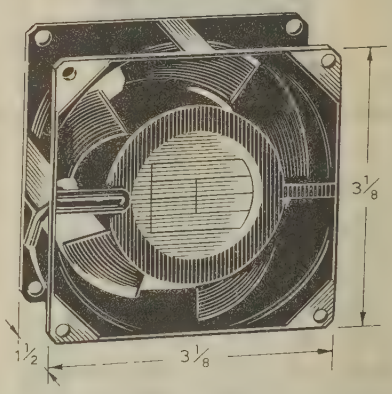
Has high cooling power for its size. Model 122VF is interchangeable with 7500 and Major with economical shaded pole motor construction. Precision built with ball bearings and aluminum frame for longer life. UL component recognition. 50/60 Hz operation. **Model 282** for 115V; **281,** for 220V. Wt., 41 oz.

PERFORMANCE CURVE 760 122VF



Stock No.	Mfr's Type 760 112VF-	EACH			
		1-9	10-24	25-49	50-Up
612-0150	282-1115	39.75	36.60	34.20	31.80
612-0160	281-11220	39.75	36.60	34.20	31.80

760 SERIES 1½" DEEP AXIAL FAN

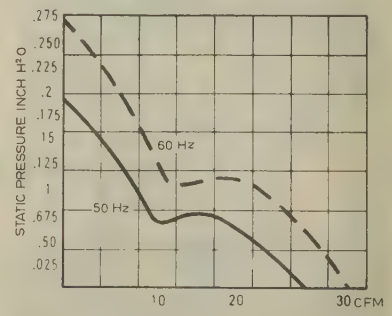


MODEL 126LF

- **Interchangeable with SPRITE/8500**
- **Only 3⅛" sq. x 1½" deep**

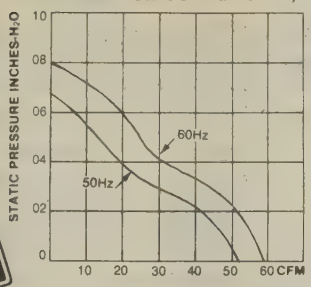
For high density packaging. Ball bearing construction and aluminum frame for longer life. Balanced lightweight impeller assures quiet air flow with less bearing wear. Built-in 12" leads. Interchangeable with 8500 and Sprite but with better pressure characteristic. UL component recognized. 50/60 Hz operation. For 115V. Wt., 18 oz.

PERFORMANCE CURVE 760 126LF

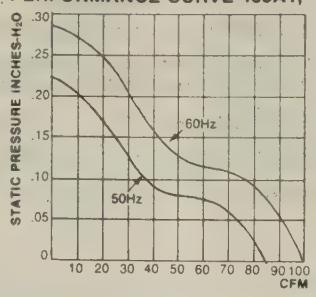


Stock No.	Mfr's Type 760 126LF-	EACH			
		1-9	10-24	25-49	50-Up
612-0170	282-11115	23.60	21.70	20.25	18.85

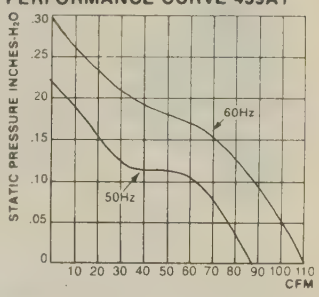
PERFORMANCE CURVE 457A1,



PERFORMANCE CURVE 458A1,



PERFORMANCE CURVE 459A1

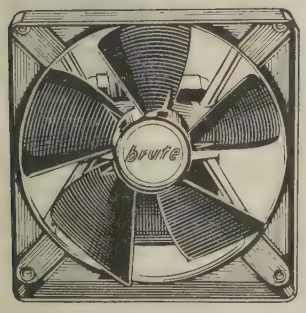


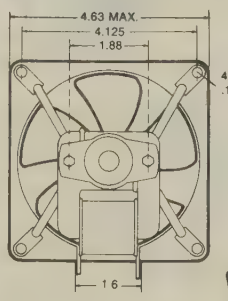
SERIES 390 GUSTO COOLING FANS

All 115V 60Hz AC, Except *220 50Hz AC

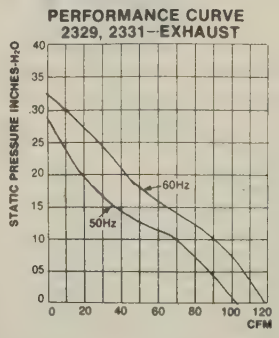
Interchangeable with all other 4½ inch fans. Quality construction throughout—durable heat sink metal frame, tough lexan impeller, lightweight non-position sensitive rotor and large sealed oil reservoir sleeve bearing system assure maximum reliability and life. Rugged, die-cast Zamac Venturi housing. Locked rotor impedance protection. Temperature range: −30°C to +55°C. Typical life in excess of 5 years. Two .110-in. wide quick disconnect terminals for soldering or cord. UL recognized. Approximate shipping weight 1 lb.

Stock No.	Mfr's Type	Air Delivery CFM	Noise Level	EACH 1-19	20-49	50-99	100-Up
612-0300	390-458A1-11	100	33 dB	14.95	12.85	11.95	11.10
612-0310	390-458A2-12*	84	33 dB	15.50	13.25	12.30	11.40
612-0320	390-457A1-10	60	24 dB	15.25	13.00	12.10	11.15
612-0330	390-459A1-13	110	40 dB	16.50	14.05	13.05	12.10
612-0340	390-459A2-14*	88	40 dB	16.75	14.15	13.15	12.20

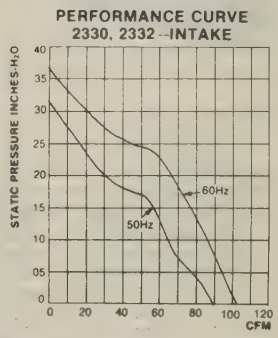




PERFORMANCE CURVE 2329, 2331—EXHAUST



PERFORMANCE CURVE 2330, 2332—INTAKE



SERIES 390 LOW NOISE BRUTE FANS

Low cost cooling with increased reliability, greater airflow and low noise level—only 31dB. Operating life exceeds that of concentric motor designs because the winding heat is kept away from the lifetime lubricated self-aligning bearings which incorporate the positive oil circulation system. Life: better than 100,000 hours @ 25°C. Rugged metal frame mounts on conventional 4⅛" ctr. The powerful two-pole shaded pole motor is impedance protected during locked rotor condition. Temp. range: −30°C. to +55°C. Rugged die-cast housing. Struts: 3/16" dia. aluminum. Impeller & bobbin: 94V-0 rated plastic. Two built-in. 12-in. 18 ga. leads. 50/60 Hz operation. UL recognized, CSA listed. Wt. 1 lb.

Stock No.	Mfr's Type	VAC	Air Flow	Air Delivery CFM	EACH 1-24	25-49	50-99	100-Up
612-0400	390-451A1-2329	115	Exhaust	117	10.25	9.50	8.25	7.65
612-0410	390-451A2-2331	220		117	10.75	9.90	8.60	8.00
612-0420	390-450A1-2330	115	Intake	103	10.25	9.50	8.25	7.65
612-0430	390-450A2-2332	220		103	10.75	9.90	8.60	8.00
612-0440	390-451A1-2333	115	Exhaust	75	10.25	9.50	8.25	7.65
612-0450	390-451A2-2335	220		74	10.75	9.90	8.60	8.00
612-0460	390-450A1-2334	115	Intake	61	10.25	9.50	8.25	7.65
612-0470	390-450A2-2336	220		62	10.75	9.90	8.60	8.00

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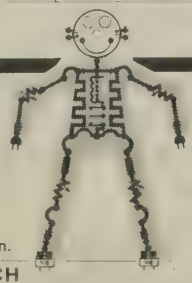
Alec Electron



ACCESSORIES

**30 Inch Plug & Cord For All Fans. ‡Jumper For Multiple Connection.

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
612-0210	760-9601-06**	1.30	.90	.80	.75
612-0220	760-9601-06‡	1.50	1.10	1.00	.95

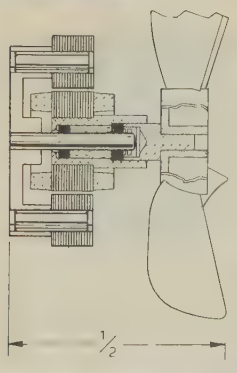
FINGER GUARDS *For all 4½" Fans † For Model 122VF Only

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
612-0230	760-9601-43*	1.90	1.35	1.20	1.10
612-0240	760-120-01-43†	3.80	2.55	2.40	2.25

REUSABLE ALUMINUM FILTER

Stock No.	Mfr's Type	EACH 1-9	10-24	25-49	50-Up
612-0190	760-100-45*	2.40	1.60	1.50	1.40
612-0200	760-100-65†	2.40	1.60	1.50	1.40

High Quality Low Price Fans

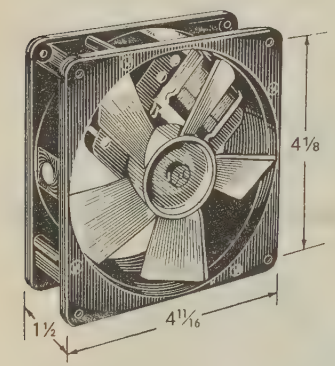


EXCLUSIVE UNIT BEARING MOTOR USED ON ALL FANS ON THIS PAGE

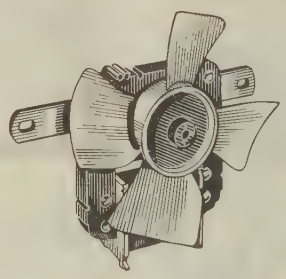
- PATENTED "UNIT BEARING" CONSTRUCTION
- 100,000 HOURS OF CONTINUOUS OPERATION WITHOUT ADDITIONAL LUBRICATION
- PRECISION ROTOR & STRATOR ALIGNMENT
- QUIET, VIBRATION-FREE OPERATION
- OPERATES IN ANY POSITION

Life expectancy is in excess of 100,000 hours of continuous operation without additional lubrication. The all position unit bearing system is housed in a one piece precision machined housing that continuously circulates the lubricant. Frame parts are press fitted together for dependable, quiet and efficient operation. The coils are bobbin wound. There are four 7/64" diameter mounting holes in each side of the stator on 1⅞ inch centers. Two of the holes are on the shaft centerline. The motor is 2 15/16" high x 2½" wide. Motors are 115 volt, 60 Hz impedance protected with clockwise rotation facing shaft. Shaft extension is 0.187" diameter. Ideal for industrial and computer operations where long operating life is required.

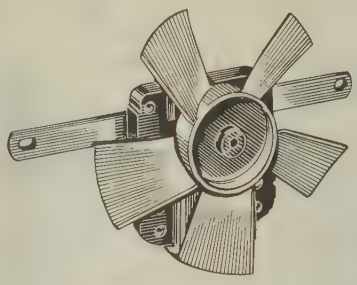
NEW!



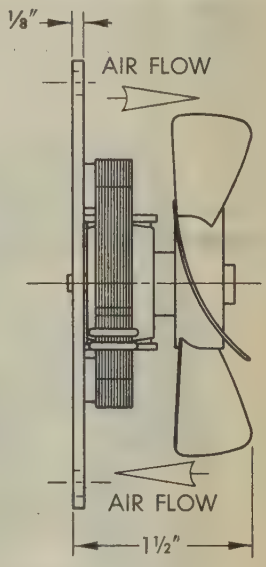
BOX 75 & 110



SKELETON 45

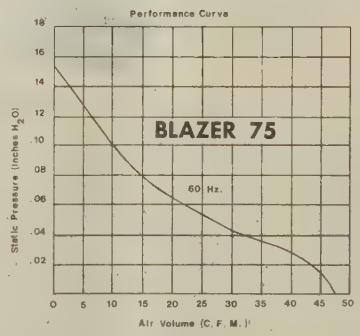


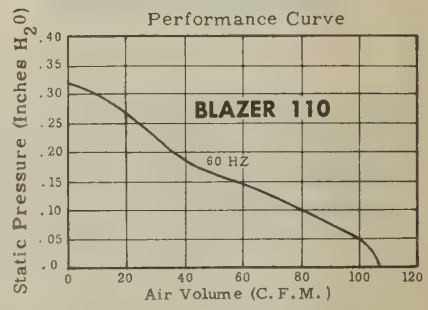
SKELETON 75 & 110



Ideal where small size & long life with high air flow at low noise levels is desired. Unit bearing shaded pole motor design with stationary shaft and rotating bearings insure oil retention. Interchangeable mtg. with competitive fans. Motor on 1½" mtg. ctrs. All metal mounting eliminates breakage. Male terminal accepts std. female plug. UL & CSA recognized. Impedance protected. 115V. 60Hz. **Model 45:** Ultra quiet fan also mounts on 2 13/16" mtg centers. **Models 75 & 110:** Super quiet fans also mount on 4⅛" mtg. centers. Plastic fan blade. *Refers to air flow over motor or away from motor.

Stock No.	Description	Watts	CFM	Wt. lbs.	EACH 1-9	10-24	25-49	50-Up
618-0100	Blazer Box 75	15	65/75	1¼	12.00	9.60	8.65	7.80
618-0200	Blazer Box 110	17	100/110	1½	13.00	10.40	9.35	8.45
618-0400	Skeleton 110 Air Away*	17	100/110	1	11.75	9.50	8.07	7.22
618-0500	Skeleton 110 Air Over*	17	100/110	1	11.75	9.50	8.07	7.22
618-1000	Skeleton 45 Air Away*	15	35/45	1	8.60	6.90	5.85	5.25
618-1100	Skeleton 45 Air Over*	15	35/45	1	8.60	6.90	5.85	5.25
618-1200	Skeleton 75 Air Away*	15	65/75	1	9.25	7.40	6.29	5.62
618-1300	Skeleton 75 Air Over*	15	65/75	1	9.25	7.40	6.29	5.52





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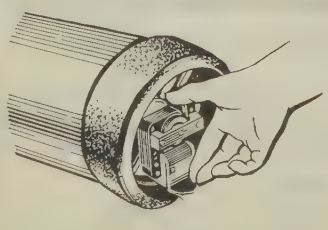
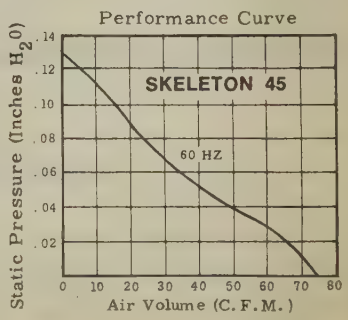
DUCTED BOOSTER FAN

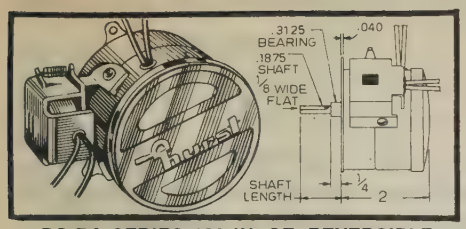


Installs in just minutes. Fan cartridge fits std. heating ducts. To insert fan into heating system duct: simply disconnect the duct and insert fan cartridge (as shown at left). The sponge rubber cuff serves to double insulate and hold unit securely in place. Requires no mounting screws or brackets. Drill a 7/16" hole for the grommet (included), thread cord thru and connect to motor leads. Twist-on wire connectors are furnished for the splices. Fan can be operated from a light switch, thermostat, speed control (std. light dimmer), or just plug it in and let run continuously. Full speed range 1750-2100 RPM. Operates on 115V, 60 cycle. AC.

Stock No.	Mfr's Type	CFM	Fan Lgth "A"	Duct Size "B"	Voltage	Wt. lbs.	EACH 1-9	10-24	25-49	50-Up
618-2000	Duct 15-0024	55	2¾"	5" Dia.	115	2	13.53	10.95	10.00	9.20
618-2100	Duct 15-0001	75	2¾"	6" Dia.	115	2	13.75	11.11	10.18	9.41
618-2200	Duct 15-0022	150	3¼"	8" Dia.	115	3	17.55	14.35	13.12	12.06



Motors and Speed Controls



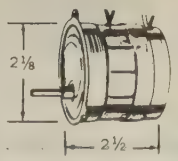
PC-DA SERIES 120 IN.-OZ. REVERSIBLE

Positive Brake and Clutch. Basic reversible motor with positive clutch and instantaneous brake. Highly accurate, vibration and shock resistant. Starts in 20 milliseconds—stops 60 rpm shaft in ½°. Shpg. wt. 1½ lbs. ***Specify 1, 2, 4, 10, 20 or 60 rpm when ordering.**

Stock No.	rpm	EACH			
		1-9	10-24	25-49	50-Up
811-09XX	1-60*	31.60	25.28	24.01	22.82

CA SERIES 100-IN.-OZ. REVERSIBLE

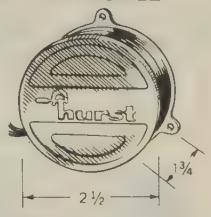
SPDT switching, instantly reversible. 100 in.-oz. torque rated at 1 rpm. Capacitor incl. Stainless steel output shaft, ⅜" dia. x 1". Case: 2½" dia. x 2⅛" deep.



Stock No.	rpm	EACH			
		1-9	10-24	25-49	50-Up
811-0297	⅓	19.61	16.24	14.90	14.16
811-0298	½	19.61	16.24	14.90	14.16
811-0299	1	19.61	16.24	14.90	14.16
811-0301	2	19.61	16.24	14.90	14.16
811-0397	600	19.61	16.24	14.90	14.16

DA SERIES 150 IN.-OZ. REVERSIBLE

Instantly reversible (SPDT switch), highly accurate both clockwise and counter-clockwise. Effective magnetic shielding. Continuous duty. Capacitor included. Torque: 150 inch-ounces at 1 rpm. Stainless steel output shaft, ⅜" dia. x 1" long, flatted. Case size: 2½" dia. x 2" deep. Shpg. wt. 1 ¼ lbs. ***Specify 1, 2, 4, 6, 8, 10, 20, 30 or 60 rpm.**



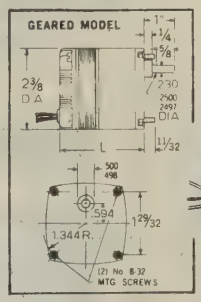
Stock No.	*rpm	EACH			
		1-9	10-24	25-49	50-Up
811-04XX	1-60	22.85	18.28	17.37	16.50

HOW TO COMPLETE STOCK NUMBERS. Where Stock No. has XX in last 4 digits, insert speed (in rpm) to replace XX. Ex.: Type DA motor with 10 rpm speed (811-04XX) becomes 811-0410.

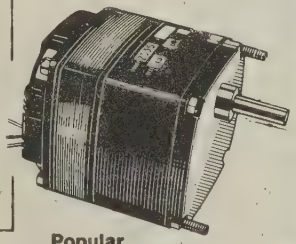
REVERSIBLE INSTRUMENT MOTORS

For continuous duty applications requiring high reliability, compact size and high output torque. Motors are totally enclosed. Torque: gear train rating, 250 oz.-in. at 1 rpm. Gearing: combination "helical" and "spur." Temperature rise: 40°C. Rotation: reversible, with 3 color-coded leads; capacitor included. Shaft size: stainless steel, ¼" dia x 1" long, flatted on geared models, $^{3}/_{16}$" dia x $^{5}/_{8}$" long, flatted on direct drive. Size: geared, 2⅜" dia., direct, 2⅜" square. Mounting: geared, 2 of the 4 frame screws are extended for face mounting; direct drive, four 8-32 tapped mtg. holes. For 115 VAC.

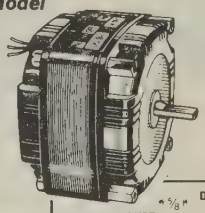
Stock No.	Mfr's Type	RPM	Torque Oz.-In.	Lgth., In.	EACH		
					1-4	5-9	10-Up
811-1220	2422-535	1	250	$2^{17}/_{32}$	51.47	47.30	41.18
811-1222	2422-536	2	150	$2^{17}/_{32}$	51.47	47.30	41.18
811-1223	2422-537	3	100	$2^{17}/_{32}$	51.47	47.30	41.18
811-1226	2422-541	6	95	$3^{1}/_{32}$	53.10	48.92	42.48
811-1234	2432-555	30	27	$3^{1}/_{32}$	53.10	48.92	42.48
811-1235	2432-557	60	15	$3^{1}/_{32}$	53.10	48.92	42.48
811-1239	2442-562	300	2.9	$2^{7}/_{8}$	48.98	45.12	39.18
DIRECT DRIVE							
811-1240	2412-588	1800	0.6	$2^{3}/_{16}$	32.26	29.78	26.54



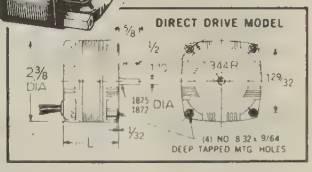
Synchronous—Available in Geared or Direct Drive Model



Popular Geared Model

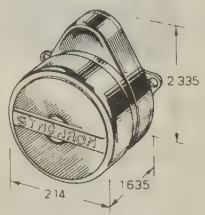


Direct Drive—1800 rpm



"SYNCHRON" MOTORS

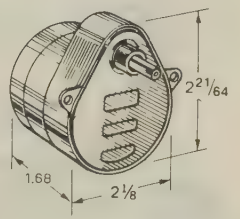
"SYNCHRON." Hysteresis timing motors. Sealed gear case, brass gears and one-piece steel pinions. Two-piece field structure, shaded poles. Mount in any position. At 1 rpm or more, motor can be stalled without damage. Double bearing on rotor shaft, reduction train and output shaft. K12RC, 4 watt "K" coil, 20-oz.-in. torque at 1 rpm. I12RC, 3 watt "I" coil, 30-oz.-in. torque at speeds shown. All have Type 12 flatted, ⅛" dia. x ⅜" shaft. Clockwise. Two .142" dia. mtg. holes spaced 1.875". −40° to +140°F. 110V, 60 Hz AC. **Specify speed. Type K12RC, 1, 2, 3, 4, 6, 10, 30, 60 rpm; Type I12RC, 1, 2, 4, 10 or 12 revolutions per hour.** Average shpg. wt. 12 oz.



Stock No.	Mfr's Type	Speed (Specify)	EACH			
			1-9	10-24	25-49	50-Up
804-00XX	K12RC	1-60 rpm	5.93	4.74	3.60	3.15
804-01XX	I12RC	1-12 rph	6.10	4.88	3.76	3.25

"900" SERIES MOTORS

900 SERIES. Self-starting hysteresis-synchronous with positive direction. Instrument-type gear train, thicker gears match increased torque. Extra-heavy phenolic first gear for low noise level. Patented, hardened steel Synchron rotor ring; improved Class A coil construction. Silicone life-time lubrication. Mounts any position. Stall continuously without damage. 8 watts, 98-oz.-in. torque at 1 rpm. Flatted shaft, ⅜" dia. x ½" long. ⅜" dia. x $^{5}/_{16}$" long bearing. Porous bronze bearing insert. Double bearings. Clockwise. 110V, 60 Hz AC. **Specify speed: 1, 2, 4, 6, 20, 30 or 60 rpm.** †Type 9GA933 RP. 12 oz.



Stock No.	Mfr's Type	Speed (Specify)	EACH			
			1-9	10-24	25-49	50-Up
804-090X	900†	1-2 rpm	15.16	13.48	12.57	11.77
804-09XX	900†	4-60 rpm	12.18	9.74	8.69	7.60

HOW TO ORDER MOTORS

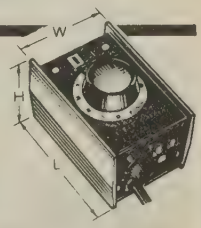
Insert desired rpm (for K12RC and 900) or rph (for I12RC) in place of XX in Stock No. EXAMPLE: K12RC motor at 1 rpm is 804-0001.

MOTOR SPEED CONTROLS

Varies the speed of any universal AC-DC motor-driven tool, from 0 rpm to full speed without loss of power. For use with universal AC-DC and DC series motors only; may also be used on electric clutches and brakes requiring DC voltage from 0-85 V from 120 V input. Three-position switch: off/variable/full speed. Fused for circuit protection. MK-II and MK-III portable models are designed for the handyman or hobbyist; clip onto belt, wall, power tool. Other models are for industrial and professional use in factory, laboratory or in the field. All models have heavy duty 3-wire receptacle for voltage output; heavy duty vinyl 3-wire grounding input cord set with grounding plug. Rugged all-metal housings.

- For AC-DC and DC Series Motors
- "Off/Variable/Full Speed" Switch
- Fused For Circuit Protection

Stock No.	Mfr's Type	AC Input Volts	Maximum Motor Nameplate Rating	Approx. Max. HP	Approx. Max. Drill Size, In.	EACH	
						1-9	10-Up
847-8006	MK-II	110-125	5 amps	0.4	¼, ⅜	17.58	14.06
847-8007	MK-III	110-125	10 amps	0.8	½	28.58	22.86
847-8010	MK-15	110-125	15 amps	1.2	⅝	63.78	51.02



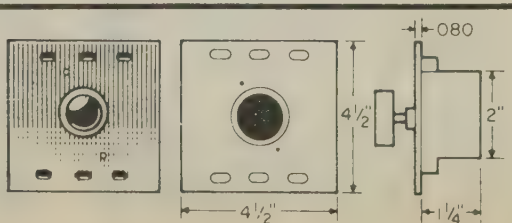
Type	W	L	H
MKII III	2¼"	4"	2½"
MK15	5"	5"	2½"

INDUSTRIAL FAN SPEED CONTROL

Model FS-5. A highly reliable fan speed control that provides continuously variable fan and blower speed, from full to any desired low speed. For use only with shaded pole, permanent split capacitor and universal (AC-DC) motors. Installs in single gang electrical wall box. Handles 5 amps maximum (motor nameplate rating). Built-in trimmer for setting speed to prevent stalls. Solid state. 120 VAC. $2^{1}/_{8}$ x $4^{1}/_{8}$ x $1^{5}/_{16}$".

847-8004. 1-4 ..... Each 14.95
5-Up ..... Each 11.96

- 5-Amp Speed Control
- Low- to Full-Speed
- Built-In Trimmer To Prevent Stalls
- Single Gang Wall Box



Cabinets, Relay Racks, Drawers, Casters

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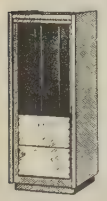
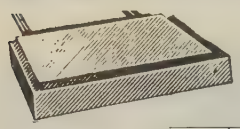


Upright Unit

SERIES 2000 UPRIGHT CABINET RACKS

All-welded frame with 14-gauge steel members; 18-gauge steel door, sides and top. "U" braces welded to sides of frame. Front panel mounting rails tapped 10-32. Rear rails pierced 9-23. Base bracket for casters. Completely assembled. Ordering information is contained in the note below. P.S. means panel space.

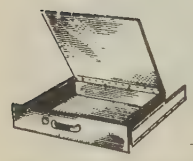
Mfr's Type	Stock No. RB	Ht. In.	P.S. In.	Wt., Lbs.	EACH 1-4	5-9	10-Up
E-2005	736F3974	70½	61¼	219	320.14	230.00	220.45



SERIES 2000 DESK TOPS

May be installed on any Series 2000 cabinet rack. Attractive and functional White Formica top. Size: 24³⁄₁₆x19½x3⅛". †Indicates supporting channel. **See ordering note below.**

Mfr's Type	Stock No. RB	W. In.	Dp. In.	H. In.	† In.	Wt. Lbs.	EACH 1-4	5-9	10-Up
DT-2960	736F3700	24³⁄₁₆	19½	3⅛	21³⁄₁₆	29	63.79	45.85	43.93

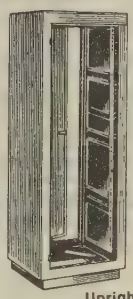


DESK TOP DRAWERS

For use with Series 2000 or Series 60 Cabinet racks. Hinged top is Formica bonded to aluminum; has piano-type hinge. Latch locks and releases drawer and top. Nylon rollers. Front, 3½x19". Inside, 16⁹⁄₁₆x2³¹⁄₃₂x14⅞". **See note below.**

Mfr's Type	Stock No. BY	EACH 1-4	5-9	10-Up
60-2363	736F9019	99.45	71.50	68.48

NOTE: In tables on this page, GR=Gray Rinkletex, HG=Gray Hammertone, GG=Dark Gray Textured, BB=Dark Blue Textured, GY=Light Gray Textured, BY=Light Blue Textured, and RB=Royal Blue Textured finish. TO ORDER: Find Type desired, read across to color wanted to locate complete Stock No.



Upright Unit

SERIES 60 UPRIGHT CABINET RACKS

Feature welded frame of 14-gauge steel. Sides, rear door are 16-gauge steel. Adjustable vertical panel mounting rails. Front rails drilled, tapped 3-32, W.E. spacing. Rear rails are drilled with universal spacing. Standard 19" panels fit. 24¹⁄₁₆" wide. 23¾" deep inside. Top opening, 20½". P.S. means panel space. Depth, 25½". **See note at left, below, for ordering information.**

Type 60-	Stock No. BB	GG	Ht. In.	P.S. In.	Wt. Lbs.	EACH 1-4	5-9	10-Up
2312	736F8960	8961	78⅝	70	256	365.23	262.45	251.51

SERIES 60 INCLINED PANEL RACKS

Accept 19" panel. Assembled. Front rails drilled, tapped at 10-32 W.E. spacing. Welded frame of 14-gauge steel; sides, door of 16-gauge steel. Inclined panel slanted 20°. 50⅝x24¹⁄₁₆x22" outside; 20¼" d. inside. *Inclined top panel ht., †Vertical panel ht. **See note at left, below.**

Type 60-	Stock No. BB	GG	I.P.* In.	VP.† In.	EACH 1-4	5-9	10-Up
2331	736F8980	....	15¾	24½	277.80	199.60	191.30
2332	736F8985	8986	17½	22¾	277.80	199.60	191.30

Inclined with Desk Top

DESK TOPS. Fit all Series 60 Cabinet Racks. Antique White Formica top. Metal sides and cowl. 24⅛" w. x 19½" d. x 3¹⁄₁₆" h.

Mfrs Type	Stock No. BB	Depth Inches	EACH 1-4	5-9	10-Up
60-2360	736F9001	22	64.63	46.50	44.51

SLIDING DESK TOPS. Formica surface. Occupy 1¾" panel space. Front panel. WxDxPanel: 16⅞x15½x19x1¾". 9¼ lbs.

Mfr's Type	Stock No. BY	EACH 1-4	5-9	10-Up
60-2361	736F9006	35.74	25.70	24.61

DRAWER. Slides out 16". 16-ga. steel with 11-ga. panel, brackets. Handles: 16¹⁹⁄₃₂x6¹¹⁄₃₂x19¹³⁄₆₄". Takes 8¾" panel space. 28 lbs.

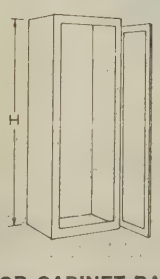
Mfr's Type	Stock No. GY	EACH 1-4	5-9	10-Up
60-2368	736F9060	80.66	57.95	55.55

DELUXE ENCLOSED RELAY RACKS

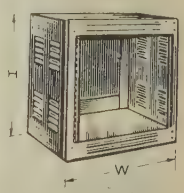
Suitable for use in a variety of lab, industrial and commercial applications. Doors have 2 snap-action catches; 16-ga. steel with 7⁄64" panel supports. Casters can be mounted on base. For 19" panels. Gray Hammertone only.

Stock No. 736L2F	Mfr's Type CR-	Overall Size Inches	Panel Ht.	Wt., Lbs.	EACH 1-9*
3182	1771	47¹⁵⁄₁₆x22x17⅛	42	92	103.71
3192	1772	66¹⁵⁄₁₆x22x17⅛	61¼	115	129.84
3222	1780	75¹⁵⁄₁₆x22x17⅛	70	125	133.18
3262	2075	75¹⁵⁄₁₆x22x22⅛	70	147	158.82

*Contact Allied for higher quantity prices.



HEAVY-DUTY CABINET RACKS



For use where more strength and depth is needed; clear inside depth of 16¹⁄₁₆"; 22" wide (24" width available on special order). Hinged removable rear door. Louvered sides and 2½x17½" rear bottom vent. See note at left, for auxiliary information.

Mfr's Type	Stock No. HG	BR	Ht. (In.)	Panel Ht. (In.)	Wt., Lbs.	Price Code
CR-1736	736-3082	736-3080	24½	19¼	50	A
CR-1737	.....	736-3090	31½	26¼	57	B
CR-1738	736-3102	....	40¼	35	70	C

Price Code	EACH 1-9	10-14	15-19	20-Up
A	64.30	52.00	46.20	44.25
B	68.97	55.80	49.60	47.50
C	82.08	66.35	58.95	56.52

DESK-TYPE RELAY RACKS

Have chassis-type base. Supporting angles assure steadiness. Mfr's Type RR-1248: 24x20⅜x12" overall, 21" panel ht.; Type RR-1249: 31x20⅜x12" overall, 28" panel ht. **In Black Rinkletex or Gray Hammertone.**

Gray Hammertone	Black Rinkletex	Mfr's Type	Wt., Lbs.	EACH 1-14	15-24	25-Up
736U6200	736X6301	RR-1248	15	19.04	17.10	15.20
736R6203	736X6311	RR-1249	18	22.46	20.20	17.95

ENCLOSED 2-DOOR CABINET RACKS

Solid front door, louvered rear door. Adjustable panel mounting supports may be moved from the front to the rear of cabinet in 1-inch increments so that distance behind panels may be adjusted from 9" to 15". 16-ga. steel. Take casters. **Gray Hammertone finish (HG).**

Mfr's Type Type	Stock No.	Panel Space Inches	O'all Ht., In.	Wt. Lbs.	EACH 1-9	10-Up
CR2172	736L2F3292	61¼x19	66⅝	138	161.99	145.55

SWIVEL TRUCK CASTERS

TYPE RC-7756. Rugged ball-bearing casters designed for deluxe-type relay racks. Support up to 400 lbs. distributed on four casters. Rugged, long-wearing wheels made from high-grade hard rubber. Ht., 2⅝". 1¾ lbs. *Pkg. 4.*
736R6000. 1-4 Pkgs. ..... Per Pkg. 10.50
5-11..Per Pkg. 7.00 12-Up..Per Pkg. 5.60

TYPE RC-7758. Heavy-duty casters with very sturdy construction for heavy loads. For use with Mfr's Series 60 cabinets. Ball bearings are hard tread composition for longer wear. Wheels are self-lubricating for convenience. Wheel dia., 2½". Height, 3¼". Wt. 6 lbs. *Pkg. of 4.*
736-6001. 1-4 Pkgs. ..... Per Pkg. 18.40
5-11 Pkgs...Per Pkg. 16.60 12-Up Pkgs...Per Pkg. 14.80

OPEN TYPE RELAY RACKS

RR-1363, 1264, 1364, 1366. Uprights 7⁄64" steel channels 3" deep. Has chassis type base. Take RC7756 casters. **RR-1369** is extra sturdy with 8" deep welded U member. Panel mounting rails tapped 10-32. 12-ga. steel. Chassis type base will accept casters. Racks may be bolted together.

Mfr's Type	Stock No. BR	HG	Panel Space Inches	Overall Ht.xW. Inches	Wt. Lbs.	EACH 1-9	10-Up
RR-1363	.....	6352	36¾x19	40⁵⁵⁄₆₄x19¾	36	39.83	35.80
RR-1264	736L2F6330	6332	66½x19	70³⁵⁄₆₄x19¾	46	47.34	42.55
RR-1364	736L2F6360	6362	71¾x19	75⁵⁵⁄₆₄x19¾	48	49.77	44.66
RR-1366	736L2F6370	....	77 x19	81⁷⁄₆₄x20	49	54.44	48.90
RR-1369	.....	6382	77 x19	80⅜x20⅞	104	101.12	90.80

DELUXE CABINET RACKS

The "work-horse" of economy-type housings. This welded steel cabinet rack has contoured front uprights—recommended for use as an enclosure for instrumentation. Hinged top with flush lift handle. Clear inside depth, 4¹³⁄₁₆". **See Color Code Above, Left.**

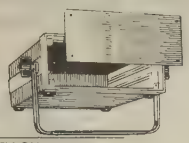
Type CR-	Stock No. HG	Height In.	Panel Space In.	Wt., Lbs.	EACH
1726	736U3052	8²⁵⁄₃₂	7	24	34.24
1741	736U3132	10⅝	8¾	28¼	36.41
1740	736U3122	12⅝	10½	31	42.67
1742	736U3142	14⅛	12¼	32	43.92
1739	736U3112	15¹³⁄₁₆	14	35	59.62
1743	736U3152	19⅝	17½	40	58.37
1728	736U3072	33⅝	31½	58	71.64
1744	736U3162	28⅛	26¼	51	67.47
1727	736U3062	22¹³⁄₁₆	21	43	62.63
1745	736U3172	36¹³⁄₁₆	35	63	75.40

Enclosures, Cabinets, Rack Panels, Chassis, Brackets

ALUMINUM DESK-TOP ENCLOSURES

Ideal desk top or portable enclosures made of durable alum. with removable top and bottom. Carrying handle doubles as a tilting bail. Includes self-adhesive rubber feet and front panel. Fits .060 alum. accessory chassis or 1/16" PC boards. Mar-resistant, easy-to-clean Nextel finish. Two colors.

NEW!



CABINET

Mfr's Type	Stock No. Blue/White	Stock No. Brown/White	H x W x D (In)	Panel Space (In)	Wt. (lbs.)	EACH 1-4	EACH 5-9	EACH 10-Up
TR-6100	736-7645	736-7647	3½ x 8 5/16 x 10¾	3¼ x 8 3/64	4½	64.80	58.30	51.85
TR-6101	736-7650	736-7655	5¼ x 8 5/16 x 13¼	5 x 8 3/64	5½	69.40	62.45	55.50
TR-6102	736-7660	736-7665	7 x 11 1/16 x 13¼	6¾ x 10 53/64	7	75.95	68.35	60.75
TR-6103	736-7670	736-7675	8 x 12 x 18¾	7¾ x 11¾	9½	82.10	73.90	65.70

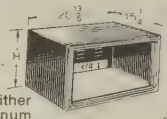
CHASSIS

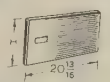
Mfr's Type	Stock No.	L x W x H (In)	Wt. (lbs.)	Fits Cabinet	EACH 1-4	EACH 5-9	EACH 10-Up
TRC-610	736-7680	10⅛ x 7¾ x 1¼	¾	TR-6100	9.00	5.40	4.80
TRC-611	736-7685	12⅝ x 7¾ x 1¾	1	TR-6101	9.63	5.80	5.15
TRC-612	736-7690	12⅝ x 10½ x 1¾	1¼	TR-6102	10.88	6.55	5.80
TRC-613	736-7695	18⅛ x 11 7/16 x 1¾	1¾	TR-6103	13.63	8.20	7.30

STYLIST HEAVY DUTY CABINETS

NEW!

• Hold Up to 500 Pounds! • Meet E.I.A. Standards! • Reinforced! • Made of Durable 16-Gauge Steel





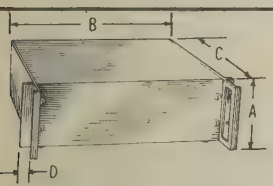
Square-cornered steel cabinets reinforced at corners. 16-gauge cold-rolled steel. Accept either 19" panels or cabinet doors. Self-supporting with an internal framework. Etched aluminum extrusion frame on front panel, self-adhesive rubber feet. In Royal Blue (RB) and Gray Hammertone (GH). Clear inside depth: 14 3/16"; overall width: 20 13/16"; overall depth: 15¼". Has .060 steel doors, 19" wide — inside depth 15/16". Rear panel has 1¾" high opening for cable accessories.

CABINETS

Mfr's Type	Stock No. GH	Stock No. RB	Overall Height	Panel Space	Wgt. Lbs.	EACH 1-4	EACH 5-9	EACH 10-Up
S-1640	736-6400	736-6405	8 13/16"	7"	26¾	75.40	67.65	60.15
S-1641	736-6410	736-6415	10 9/16"	8¾"	29	78.99	70.90	63.05
S-1642	736-6420	736-6425	12 5/16"	10½"	31	83.08	74.60	66.30
S-1643	736-6428	736-6430	14 1/16"	12¼"	33	86.51	77.75	69.10
S-1644	736-6433	736-6435	15 13/16"	14"	35¼	90.26	81.05	72.05
S-1645	736-6440	736-6445	17 9/16"	15¾"	37¼	100.12	89.90	79.90

DOORS

Mfr's Type	Stock No. GH	Stock No. RB	Height	Wgt. Lbs.	Fits Cabinet	EACH 1-4	EACH 5-9	EACH 10-Up
SD-540	736-7030	736-7035	7"	4¾	S-1640	15.05	13.55	12.05
SD-541	736-7040	736-7045	8¾"	5½	S-1641	16.12	14.45	12.85
SD-542	736-7050	736-7055	10½"	6¼	S-1642	16.90	15.20	13.50
SD-543	736-7058	736-7060	12¼"	7	S-1643	17.45	15.70	13.95
SD-544	736-7063	736-7065	14"	7¾	S-1644	18.65	16.80	14.90
SD-545	736-7070	736-7075	15¾"	8½	S-1645	19.65	17.70	15.70



"VALU/LINE" HANDLE UNIT

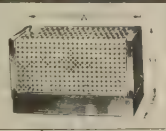
Combines innovative engineering techniques with styling that is both classic and contemporary. Priced surprisingly low. May be used as an independent enclosure or in a standard E.I.A. 19" cabinet rack. Adhesive paper protective covering of the ⅛" brushed aluminum panels provides an excellent surface for indicating position when drilling or punching panel areas. Base, rear and top are .057" aluminum with smooth white enamel finish. Sides are ⅛" aluminum with white textured enamel. Completely assembled unit includes two separate detachable rack mounting brackets and rubber feet.

Mfr's Type	Dimensions in Inches A	B	C	D
HC-14101	3½	17	13	1
HC-14103	5¼	17	13	1
HC-14104	7	17	13	1
HC-14105	8¾	17	13	1
HC-14106	10½	17	13	1
HC-14107	10½	17	15	1

Stock No.	Mfr's Type	EACH 1-4	EACH 5-9	EACH 10-Up
736-4451	HC-14101	75.07	60.70	50.60
736-4453	HC-14103	77.40	62.55	52.15
736-4454	HC-14104	80.43	56.65	54.70
736-4455	HC-14105	85.17	68.90	57.40
736-4456	HC-14106	89.01	72.00	60.00
736-4457	HC-14107	92.94	75.15	62.65

STD AMPLIFIER CHASSIS

20-gauge steel; 18-gauge angles on ends for firm bracing. Side, top area between ends covered by 20-gauge metal screening for ventilation of components. 2½" high chassis, except *, 3". Black Rinkletex.



Stock No.	Type CA.	Size H x W x D Inches	Wt. Lbs.	EACH 1-24	EACH 25-Up
736-1994	1126	8 5/16 x 17 1/8 x 7 1/8	6	13.44	12.05
736-1996	1128*	8 13/16 x 12 1/8 x 10 1/8	7	13.70	12.35

BALL-BEARING CHASSIS SLIDES

Press-formed main members; chrome-carbon-steel ball bearings. .180x.210-in. Slide mounting holes.

Stock No.	Mfr's Type AS-	Lgth.	Travel	Load Rating	Wt. Lbs.	PER PAIR 1-4	PER PAIR 5-9	PER PAIR 10-Up
736-0900	5000	12"	9"	135	1¾	14.95	12.10	10.75
736-0901	5001	16"	12"	104	2	17.37	14.10	12.50
736X0922	5002	20"	15"	73	2½	18.95	15.30	13.60
736X0926	5022	20"	20"	140	5¼	42.59	34.45	30.65

PANEL-MOUNTING CHASSIS

Use where depth is limited or for access from front. .060" aluminum, reinforced corners, with flanges. Natural finish.

Stock No.	Mfr's Type	Ht. In.	Wt. Lbs.	EACH 1-24	EACH 25-49	EACH 50-Up
736-2277	CB-1370	1¾	¾	6.00	3.60	3.20
736-2278	CB-1371	3½	1¼	6.75	4.05	3.60
736-2279	CB-1372	5¼	1½	7.63	4.55	4.05
736-2280	CB-1373	7	2	8.50	5.10	4.50
736-2281	CB-1374	8¾	2¼	10.38	6.20	5.50
736-2282	CB-1375	10½	2¾	12.00	7.20	6.40

CHASSIS SUPPORTING ANGLES

7/64" steel relay runners for heavy shelves. Black enamel.

Stock No.	Mfr's Type	HxWxD Inches	Wt. Lbs.	PER PAIR 1-24	PER PAIR 25-49	PER PAIR 50-Up
736-6600	SA-1349	13/8x3x14½	4	6.63	4.00	3.55
736-6601	SA-1350	13/8x3x12	3	6.63	4.00	3.55

CHASSIS MOUNTING BRACKETS

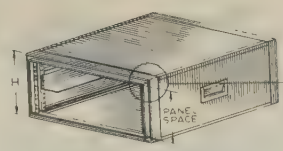
Durable, heavy-gauge steel brackets accept chassis 3" high. Black enamel finish. Sold in pairs.

Stock No.	Mfr's Type	Ht. In.	Depth In.	Wt. Lbs.	PER PAIR 1-49	PER PAIR 50-99	PER PAIR 100-Up
736-4503	MB-458	6½	8	1¼	3.75	2.20	1.95
736-4501	MB-449	6½	12	2	4.88	2.95	2.65
736-4505	MB-460	6½	13	2½	4.63	2.75	2.45

TRIANGULAR MOUNTING BRACKETS

Gives rigid support for panel, chassis and shelves. Heavy-gauge steel. Black enamel finish.

Stock	Mfr's Type	Ht. In.	Depth In.	Wt. Lbs.	PER PAIR 1-49	PER PAIR 50-99	PER PAIR 100-Up
736-4506	MB-1266	5	5	1	2.88	1.70	1.50
736-4507	MB-1267	7	7	1	3.50	2.05	1.85
736-4508	MB-1268	9	9	1½	4.38	2.60	2.30



Rugged Aluminum

CLASSIC II CABINETS

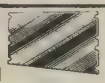
Combine rectilinear outlines with innovative features to meet critical engineering demands. Double rim 6063-T5 aluminum frame around front of cabinet. Sides, top and bottom are .060 aluminum. Front and rear mounting rails tapped 10-32 with W.E. spacing. Accept standard 19" panels. Panel-to-panel depth, 20 9/16". Heavy-duty aluminum handle at each end for convenient portability. Vinyl textured finish provides attractive appearance and extra durability. Chassis support is 16-gauge steel. Overall depth, 21 7/16". Royal Blue Textured. *Panel space.

Type AGC-	Stock No. Royal Blue	Size In. Ht.	Size In. PS*	Wt. Lbs.	EACH 1-4	EACH 5-9	EACH 10-Up
9267	736F0505	6⅝	5¼	19	131.26	94.35	88.45
9268	736F0508	8⅜	7	20	138.36	99.40	93.20
9269	736F0511	10⅛	8¾	22	141.62	101.75	95.40
9270	736F0514	11⅞	10½	23	146.38	105.20	98.65
9271	736F0517	13⅝	12¼	15	152.30	109.45	102.60
9272	736F0581	15⅜	14	26	156.98	112.80	105.75
9273	736F0584	17⅛	15¾	28	162.91	117.10	109.75
9274	736F0587	18⅞	17½	29	167.75	120.50	113.00
9275	736F0590	20⅝	19¼	31	171.34	123.10	115.45
9276	736F0593	22⅜	21	32	177.02	127.20	119.25
9279	736F0602	27⅝	26½	37	191.63	137.70	129.10
9280	736F0605	29⅜	28	38	195.64	140.60	131.80

DOORS FOR CLASSIC II CABINETS

Fit any rack or cabinet with 19" panel space. Made of ⅛" 505-H36 aluminum alloy. Plated flush type latch. Stop fits on one mounting rail; hinged door on other. Sand textured finish.

Type AGD.	Stock No. S	Ht. In.	Wt. Lbs.	EACH 1-4	EACH 5-9	EACH 10-Up
367	736F0626	5¼	1¾	13.19	10.70	9.50
368	736F0630	7	2¼	15.45	12.45	11.10
369	736F0634	8¾	3	17.03	13.75	12.25
370	736F0638	10½	3¼	18.62	15.05	13.35
371	736F0642	12¼	3¾	19.96	16.10	14.30
372	736F0646	14	4¼	20.37	16.45	14.65
373	736F0650	15¾	4¾	23.05	18.65	16.55
374	736F0654	17½	5¼	24.88	20.15	17.90
375	736F0658	19¼	5¾	26.64	21.55	19.15
376	736F0662	21	6¼	28.39	22.95	20.40
379	736F0674	26¼	7¾	32.98	26.65	23.70
380	736F0678	28	8¼	35.24	28.55	25.35



STANDARD ALUMINUM BACK PANELS

[A] ⅛x19" aluminum panels have notched edges for standard W.E. spacing.

HOW TO ORDER

7 finishes. Add following digits in place of suffix "N" for color: 1=Black Rinkletex; 3=Gray Rinkletex; 5=Gray Hammertone; 2=Light Blue Textured; 4=Light Gray Textured; 7=White; 6=Sand.

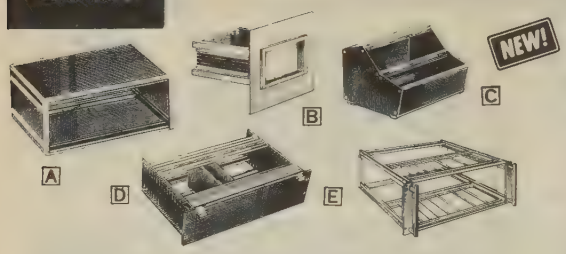
Stock No.	Mfr's Type	Ht. In.	Wt. Lbs.	EACH 1-49	EACH 50-99	EACH 100-Up
736X511N	PA-1101	1¾	¼	3.63	2.15	1.90
736X512N	PA-1102	3½	¾	5.00	2.95	2.65
736X513N	PA-1103	5¼	1	6.50	3.85	3.45
736X514N	PA-1104	7	1¾	8.25	4.95	4.40
736X515N	PA-1105	8¾	2	9.25	5.60	4.95
736X516N	PA-1106	10½	2½	12.00	7.20	6.40
736X517N	PA-1107	12¼	2¾	13.75	8.30	7.35
736X518N	PA-1108	14	4	10.52	9.45	8.40
736X519N	PA-1109	15¾	3½	11.70	10.55	9.35
736X520N	PA 1110	17½	4	12.86	11.50	10.25
736X521N	PA 1111	19¼	4¼	14.03	12.60	11.20
736X534N	PA-1112	21	5	15.53	13.95	12.40

SURFACE-SHIELD RACK PANELS

[B] ⅛" thick bright aluminum alloy rack panels in blemish-free mill finish. 19" wide.

Stock No.	Mfr's Type	Ht. In.	Wt. Lbs.	EACH 1-49	EACH 50-99	EACH 100-Up
736X7200	SFA-1831	1¾	¼	3.00	1.80	1.60
736X7201	SFA-1832	3½	¾	5.13	3.05	2.70
736R7202	SFA-1833	5¼	1	6.63	3.95	3.50
736X7203	SFA-1834	7	1¾	8.13	4.85	4.30
736X7204	SFA-1835	8¾	2	9.50	5.65	5.05
736X7205	SFA-1836	10½	2½	12.25	7.40	6.55
736X7206	SFA-1837	12¼	2¾	14.13	8.45	7.50
736X7207	SFA-1838	14	3	10.60	9.55	8.50
736X7208	SFA 1839	15¾	3½	12.02	10.80	9.60

Enclosures, Cabinets & Accessories



A MODEL 30 BASIC CARD FRAME

Enclosures feature vinyl-clad aluminum covers and side panels for a custom appearance. Clean elegant lines—once unit is assembled, there is no visible hardware. Versatile, strong—Enclosures come in three basic widths.

Stock No.	Mfr's Type	Height		PCB Height		Depth		EACH
		In.	mm	In.	mm	In.	mm	
19-INCH WIDE RACK MOUNTING UNIT WITHOUT HANDLES								
655-0100	30-021	3.50	88	2.19	55.5	7.28	184.8	80.25
655-0110	30-042	7.00	177	5.69	144.5	9.64	244.8	98.25
655-0120	30-045	7.00	177	5.69	144.5	16.72	424.8	116.50
655-0130	30-063	10.50	266	9.15	232.4	12.00	304.8	117.00
19-INCH WIDE RACK MOUNTING UNIT WITH HANDLES								
655-0140	30-132	5.25	132.5	3.94	100.0	9.64	244.8	100.75
655-0150	30-143	7.00	177	5.69	144.5	12.00	304.8	113.75
17.20-INCH WIDE UNIT WITHOUT HANDLES								
655-0160	30-265	10.50	266	9.15	232.4	16.72	424.8	127.75
13-INCH WIDE UNIT WITHOUT HANDLES								
655-0170	30-432	5.25	132.5	3.94	100.0	9.64	244.8	81.50
655-0180	30-433	5.25	132.5	3.94	100.0	12.00	304.8	87.00

B MODEL 36 ENCLOSURES

Designed for many applications. Used for bench top or portable instruments, or as a subassembly in a larger unit. Made entirely of lighweight, sturdy, anodized aluminum with top and bottom panels in blue vinyl-clad aluminum for that custom look. Panel mounted. When used with accessories, grooves in the interior of the side profiles allow you to slide sheet metal or PCB's into them. Accessories sold at right.

Stock No.	Mfr's Type	Front Panel Height x Width		Depth		EACH
		Inches	mm	In.	mm	
655-0310	36-011	2.83 x 5.67	72 x 144	5.75	146	28.25
655-0320	36-043	3.78 x 3.78	96 x 96	10.47	266	34.25
655-0330	36-084	5.67 x 11.34	144 x 288	12.84	326	54.50

C MODEL 34 SLOPED-TOP TABLE CONSOLES

Designed to give you the maximum amount of interior room. Aluminum profiles allow access to top, front and rear of unit. Elegant vinyl-clad panels.

Stock No.	Mfr's Type	Width		Style	EACH
		In.	mm		
655-0210	34-181	16.50	417.5	Type 1	120.75
655-0220	34-381	16.50	417.5	Type 3	105.25

D MODEL 15 UNIVERSAL CARD FRAMES

Model 15 Universal Card Frames are designed to fill your basic requirements. Use on standard 19″ E.I.A. racks or combine with other Model 15 units. The single unit will hold a PCB up to 4.75″ high, while the double unit will hold a PCB up to 10″ high. Slotted side panels allow variations in the size of PCB's, or subdivide the unit into your own custom arrangement. Unlimited adjustment of the unit both vertically and horizontally. Furnished with handles.

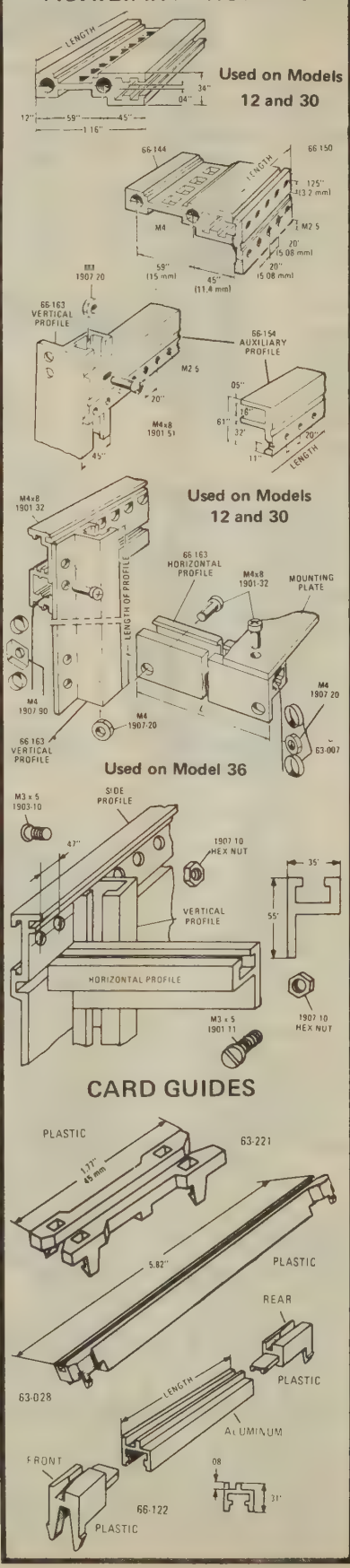
Stock No.	Mfr's Type	Height of Card Frame		Max. PCB Height		Depth		EACH
		In.	mm	In.	mm	In.	mm	
655-0070	15-130	5.25	132.5	4.75	120.65	7.00	178.4	48.75
655-0080	15-131	5.25	132.5	4.75	120.65	9.40	238.4	50.50
655-0090	15-132	5.25	132.5	4.75	120.65	11.75	298.4	51.75

E MODEL 12 CARD FRAMES

Satisfies any electrical or electronics packaging requirements. To be used on standard E.I.A. 19-inch racks. Can be stacked, subdivided. Constructed of extruded, all-aluminum sections, and is one of the strongest, most rugged and durable card frames available. Optional aluminum profiles, pre-cut to match each card frame, are also available (see accessories at right). The combination of vertical and horizontal profiles gives you the most flexible card frame system.

Stock No.	Mfr's Type	Height of Card Frame		PCB Height		Depth		EACH
		In.	mm	In.	mm	In.	mm	
WITHOUT HANDLES								
655-0010	12-043	7.00	177.0	5.69	144.5	11.85	301	55.25
655-0020	12-055	8.75	221.5	7.49	189.9	16.57	421	61.00
WITH HANDLES								
655-0030	12-142	7.00	177.0	5.69	144.5	9.50	241	62.50
655-0040	12-165	10.50	266.0	9.15	232.4	16.57	421	72.75

AUXILIARY PROFILES



CARD GUIDES

ACCESSORIES
AUXILIARY PROFILES

NEW!

INTERNAL HORIZONTAL PROFILES FOR MODELS 12 AND 30

Stock No.	Mfr's Type	Length of Profiles		EACH PK. OF 4
		In.	mm	
655-6650	66-144-20	8.20	208.28	12.20
655-6660	66-144-21	12.20	309.88	14.40
655-6670	66-144-22	16.40	416.56	16.60

UNIVERSAL AUXILIARY PROFILES FOR MODELS 12 AND 30

Stock No.	Mfr's Type	Length of Profile		Enclosure Width	EACH PK. OF 3
		In.	mm		
655-6680	66-150-22	16.20	411.4	19.00	10.05
655-6690	66-154-22	16.36	415.5	19.00	10.05

INTERNAL VERTICAL PROFILES FOR MODELS 12 AND 30

Stock No.	Mfr's Type	Length of Profile		Enclosure Height	EACH PK. OF 10
		In.	mm		
655-6700	66-163-21	3.17	80.6	3.50	10.00
655-6710	66-163-22	4.93	125.1	5.25	13.50
655-6720	66-163-23	6.88	169.6	7.00	16.00
655-6730	66-163-24	8.43	214.1	8.75	17.50
655-6740	66-163-25	10.18	258.6	10.50	21.00

INTERNAL HORIZONTAL PROFILES FOR MODELS 12 AND 30

Stock No.	Mfr's Type	Length of Profile		Enclosure Width	EACH PK. OF 10
		In.	mm		
655-6750	66-163-30	8.06	204.7	8.00	17.50
655-6760	66-163-31	12.06	306.3	12.00	23.50
655-6770	66-163-32	16.25	413	19.00	29.00

655-6300. 63-027 Mtg. Plates.....80/Pkg.....12.30

INTERNAL VERTICAL PROFILES FOR MODEL 36

Stock No.	Mfr's Type	Length of Profile		Height of Enclosure		EACH PK. OF 12
		In.	mm	In.	mm	
655-6780	66-166-20	2.28	58	2.83	72	10.80
655-6790	66-166-21	3.23	82	3.78	96	12.00
655-6800	66-166-22	5.04	128	5.67	144	13.20

INTERNAL HORIZONTAL PROFILES FOR MODEL 36

Stock No.	Mfr's Type	Length of Profile		Width of Enclosure		EACH PK. OF 12
		In.	mm	In.	mm	
655-6810	66-166-23	3.07	78	3.78	96	12.00
655-6820	66-166-24	4.96	126	5.67	144	13.20
655-6830	66-166-25	6.85	174	7.56	192	13.80
655-6840	66-166-26	10.63	270	11.34	288	18.00
655-6850	66-166-27	14.41	366	15.12	384	19.20
655-6860	66-166-28	16.30	414	17.00	432	19.80

CARD GUIDES

PLASTIC CARD GUIDE FOR MODEL 15

Stock No.	Mfr's Type	PER PKG. OF 100
655-6390	63-221	11.75

PLASTIC CARD GUIDES FOR MODELS 12 AND 30

Stock No.	Mfr's Type	PER PKG. OF 20
655-6330	63-028	10.00

ALUMINUM VARIABLE GUIDE STRIPS FOR MODELS 12 AND 30

Stock No.	Mfr's Type	Length		PER PKG. OF 12
		In.	mm	
655-6600	66-122-20	4.43	112.5	10.20
655-6610	66-122-21	6.79	172.5	13.80
655-6620	66-122-22	9.15	232.5	19.80
655-6630	66-122-23	11.52	292.5	24.00
655-6640	66-122-24	13.88	352.5	30.00

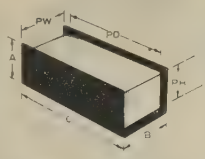
PLASTIC FRONT AND REAR ENTRANCE GUIDES FOR MODELS 12 AND 30

Stock No.	Mfr's Type	PRICE PER 100 PR.
655-6340	63-030	18.30

Top Quality Cabinets and Cases

LINEAR ALUMINUM RACK UNIT

Reliable, inexpensive way to house electronic sub-systems and instrumentation. One-piece cover removes easily for quick access to interior. No visible fasteners on panel area. Frame ⅛" alum. with black texture finish; cover .057 alum. with smooth enamel finish. Comes with non-skid rubber feet.



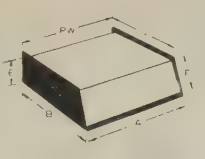
Mfr's. Type	Dimensions in Inches					
	A	B	C	PW	PH	PD
*RC-11100	3¼	5	10	4¾	2⅞	9½
RC-11101	8	12	10	11¾	7⅝	9½

Stock No.	Mfr's Type	EACH		
		1-24	25-34	35-Up
736-6024	*RC-11100	18.60	13.35	11.90
736-6025	RC-11101	32.65	29.35	26.10

*Single knockout only — centered.

ALUMINUM SLOPE UNIT

Offers excellent visibility of panel mounted components. One-piece cover removes easily for quick access to interior. No visible fasteners on panel. Frame ⅛" alum. with black texture finish; cover .057 alum. with smooth white enamel finish. With non-skid rubber feet. SC-12100; 1 knockout centered.

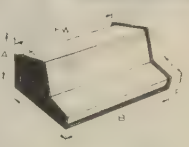


Mfr's Type	Dimensions in Inches					
	A	B	PW	D	E	F
SC-12100	5	5	4¾	3⅝₄	3⅜	4⅛
SC-12101	12	10	11¾	8⅞₁₆	2⅞	3¹⁄₁₆

Stock No.	Mfr's Type	EACH		
		1-24	25-34	35-Up
736R7000	SC-12100	10.10	9.05	8.05
736R7001	SC-12101	20.96	18.75	16.70

"COMPUCAB" KEYBOARD UNIT

Adaptable to many types of instrumentations. Install the gamut of components and accessories to meet specialized requirements. No visible fasteners. Frame ⅛" alum. with black texture finish; one-piece, easily removable cover .057 alum. with white enamel finish. Type SC-13100 does not have removable back panel.

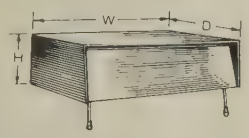


Mfr's Type	Dimensions in Inches					
	A	B	C	PW	E	F
SC-13100	5¹¹⁄₃₂	10	8¹¹⁄₁₆	9¾	1⅞	4³⁄₃₂
SC-13100	9⁶¹⁄₆₄	14	10¾	13¾	3	5

Stock No.	Mfr's Type	EACH		
		1-5	6-9	10-Up
736R7025	SC-13100	21.54	19.30	17.15
736R7026	SC-13101	43.92	39.40	35.05

TILT-A-VIEW CABINETS

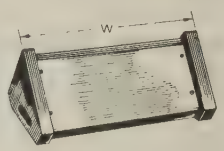
Present selective angles of viewing for accurate reading of meters, dials and recorders. Viewpoints are obtained with the slanted front face and vertical rear face. The 2" detachable legs allow changing the position of the cabinet to a desired angle. Two-piece 16-gauge steel construction. Lower and upper portions of cabinet fastened with sheet metal screws. Gray textured body with sand front and rear panels.



Stock No.	Mfr's Type	Size Ins. HxWxD	Wt. Lbs.	EACH		
				1-14	15-24	25-Up
736R7700	TV-2155	4½x15x10	7	13.28	11.95	10.60
736X7701	TV-2156	6½x16x12	12½	15.55	14.00	12.45
736X7702	TV-2157	8½x17x14	17	22.55	20.30	18.05

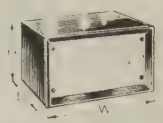
MARK-T CABINETS

Angle of panel and door allow comfortable viewing of components. All welded 16-gauge steel construction. Removable front panel and hinged door. Cam-action, self-adjusting spring latch holds door securely against frame. Recessed safety-shielded carrying handles. Gray textured body with Light Gray panel and door for smart appearance.



Stock No.	Mfr's Type	Width In.	Panel Size In.	Wt. Lbs.	EACH		
					1-14	15-24	25-Up
736X5100	MT-214	16	5¾x14	9	45.51	40.90	36.35

SHADOW CABINETS

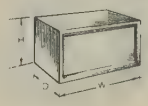


All-steel equipment cabinets with front panels recessed one inch. Two-piece bodies are made of 18-gauge steel and front and rear panels are of 16-gauge steel. Bottom, front and rear panels are each attached by four self-tapping screws. All are equipped with four rubber feet. Accept Mfr's chassis as listed in table. Finish is gray hammertone.

Stock No.	Mfr's Type	Size Inches HxWxD	Accepts Chassis	Wt. Lbs.	EACH	
					1-24	25-Up
736-6700	SB2140	8x14⅛x10	AC-424	11½	14.70	13.20
736-6701	SB2141	7½x13¾x9	AC-408	9¾	11.69	10.80
736-6702	SB2142	9½x17x11	CB-666	15¼	19.46	17.50
736-6703	SB2143	6x15½x9	AC-409	9½	11.05	9.95

MULTI-PURPOSE FUTURA VERTICAL CABINET

Removable top, side; front panel flange-held (no screws). Body, rear panel 20-gauge steel; front panel vertical, 18-gauge. Base equipped with rubber feet. Chassis mounts to base, front or rear panel. Dark blue textured finish. Av. shpg. wt. 8 lbs.



Stock No.	Type	Size (HWD) Inches	EACH			
			1-24	25-49	50-99	100-Up
736-4977	MD-1962	8x16x9	15.78	14.15	12.55	11.80

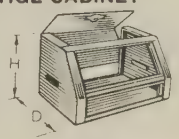
INSTRUMENT AND RECEIVER CABINETS

Front panel held in place with self-tapping screws. Panel extends full width of cabinet. Louvers on each side of cabinet. Body of 20-gauge steel; panels, 18-gauge steel,* except 16-gauge steel. Black Rinkletex finish.

Stock No.	Mfr's Type	Size In. HxWxD	Wt. Lbs.	EACH		
				1-24	25-49	50-Up
736-1800	C-973	7x8x8	5	13.25	7.90	7.05
738-1805	*C-999	12x18x12	17½	21.04	18.90	16.80

SLOPING PANEL PRESTIGE CABINET

Practical, attractive cabinet with perforated top which opens completely and removable panel trim bar to permit removal of panels from chassis. Panels st'd. 19" with safety shielded panel slots for carrying handles. Gray Hammertone finish.



Stock No.	Mfr's. Type	Height x Depth Inches	Panel Space Inches	EACH		
				1-14	15-24	25-Up
736U1815	C-1557	14¾x16⅛	10½	75.40	67.70	60.15

"TRANSICASE" CASES

Portable instrument cases of .040" thick alum. Flush-fitting alum. panel; lid on 2 slide-off hinges. 1⁵⁄₃₂" clearance from panel top. Rubber feet. Dark blue finish. All hardware is brightly nickel-plated. *Space below panel.

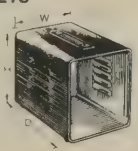
Stock No.	Type TC-	Size H x W x D Inches	Panel Size Inches	*	Wt. Lbs.	EACH
736-7601	300	6x10¹⁄₁₆x7	8¹³⁄₁₆x5¹⁵⁄₁₆	4¹³⁄₃₂	4½	36.91
736-7621	302	7½x13x9	11⅜x7¹⁵⁄₁₆	5²³⁄₃₂	8	40.58

PORTABLE ALUMINUM AND STEEL CARRYING CASES

Ideal for portable transceivers, test instruments, etc. Handle attaches to top or side. Panels removable to provide access to interior. Available in welded steel for maximum strength or in aluminum for light weight. Rigid construction assures proper support for components. **Steel cabinets available in Gray Hammertone only. Aluminum cabinets available in Gray Hammertone or Natural finish** and weigh less than 2 lbs. Av. shpg. wt. 3 lbs.

"PORTACAB" CABINETS

Sturdy .050" alum. one-piece body with contoured corners and louvers pointed inward for tight side-by-side installation. Easy access to interior thru opening (table below) in welded back. .062" alum. front panel recessed ½" with mounting flanges ½" wide. 4 rubber feet. "Use With" column in table below gives recommended Mfr's. chassis. Gray Hammertone finish.



DIMENSIONS

Mfr's Type	DxWxH Inches	Opening Inches	Louvers Per Side	Wt. Lbs.
WA-1540	8x6⅛x8	2x4½	1 Set	2
WA-1541	12x8⅛x9	2x6½	2 Sets	3½
WA-1542	8x10⅛x8	2x8½	1 Set	3¾
WA-1543	18x11⅛x11	2x9½	3 Sets	5½
WA-1544	18x14⅛x12	2x12½	3 Sets	8

ORDERING INFORMATION

Stock No.	Mfr's Type	Use With Chassis	EACH		
			1-24	25-49	50-Up
736-8210	WA-1540	AC 402	15.70	14.15	12.55
736-8215	WA-1541	AC 407	20.46	18.40	16.35
736-8220	WA 1542	AC 406	18.29	16.45	14.60
736-8225	WA-1543	AC 416	25.38	22.75	20.25
736-8230	WA 1544	AC 420	29.14	26.15	23.25

GRAY HAMMERTONE STEEL CASES

Stock No.	Type CC-	Size Inches HxWxD	Wt. Lbs.	EACH		
				1-24	25-49	50-Up
736-2505	1095	9x6x5	3¼	8.50	5.10	4.50
736-2507	1097	15x7¾x7	5	13.38	8.00	7.10
736-2503	1093	9x15x7	5	11.02	9.90	8.80

NATURAL FINISH ALUMINUM CASES

Stock No.	Type ACC-	Size HxWxD	EACH		
			1-24	25-49	50-Up
736-0304	2095	9x6x5	8.63	5.20	4.65
736-0302	2092	7x12x6	13.38	7.90	7.05

GRAY HAMMERTONE ALUMINUM CASES

Stock No.	Type ACC-	Size Inches HxWxD	EACH		
			1-24	25-49	50-Up
736-0305	2095	9x6x5	9.88	5.95	5.30
736-0301	2091	6x9x5	9.88	5.95	5.30
736-0307	2096	12x7x6	10.20	9.20	8.15

ALUMINUM

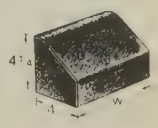
Stock No.	Mfr's. Type	Width In.	Shpg. Wt. (lbs.)	EACH			
				1-24	25-49	50-99	100-Up
736-0260	AC-1610	4	½	5.50	3.60	3.25	2.90
736-0261	AC-1611	5	½	5.38	3.55	3.20	2.85
736-0262	AC-1612	6	¾	5.88	3.90	3.50	3.10
736R0263	AC-1613	7	¾	6.50	4.30	3.85	3.45

STEEL

Stock No.	Mfr's. Type	Width In.	Shpg. Wt. (lbs.)	EACH			
				1-24	25-49	50-99	100-Up
736-1908	C-1608	6	1⅛	5.00	3.35	3.00	2.70
736-1909	C-1609	7	1⅛	5.88	3.90	3.50	3.10

UNIVERSAL SLOPING-PANEL CABINETS

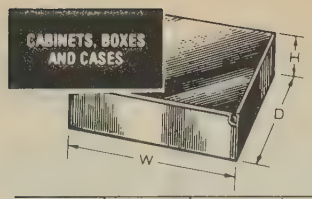
Mighty handy for control boxes, mike mixers, other related uses. One-piece detachable back and side attached with 4 screws. Wts. . . . alum. ¾ lb. max.; steel 1⅛ lbs. max.



SLOPING PANEL CABINETS

Hinged tops, removable front panel. Fit following size chassis: C-1584, 7 x 6 x 2"; C-1585, 7 x 8 x 2"; C-1586, 7 x 10 x 2"; C-1587, 7 x 7 x 2"; C-1588, 7 x 9 x 2"; C-1892, 8 x 12 x 2½"; C-1893, 10x17x3"; C-1894, ;7x13x2"; C-1896 7 x 17 x 3". **BR: Black Rinkletex; GH: Gray Hammertone.**

Mfr's Type	Stock No.		Size Inches HxWxD	Wt. Lbs.	EACH	
	BR	GH			1-24	25-Up
C-1584	736-1847	736-1855	6¹ ²ˣ⁷¹⁄₁₆ˣ⁷⁷₃₂	2½	10.13	6.10
C-1585	736-1857	736-1865	6¹ ²ˣ⁹¹⁄₁₆ˣ⁷⁷₃₂	3	11.30	6.60
C-1586		736-1875	6¹⁄₂x11¹⁄₁₆x7⁵⁄₃₂	3½	12.75	7.65
C-1892		736-1935	8x13¹⁄₁₆x8¹³⁄₃₂	5¼	11.44	10.25
C-1893	736-1937	736-1945	10x18¹⁄₁₆x10¹³⁄₃₂	8½	14.95	13.45
C-1587		736-1885	8x8¹⁄₁₆x7¹⁵⁄₁₆	2¾	13.25	7.90
C-1588		736-1895	8x10¹⁄₁₆x8	3¼	14.63	8.80
C-1894		736-1955	8x14¹⁄₁₆x8	4	10.27	9.25
C-1896		736-1965	9x18¹⁄₁₆x10¹⁵⁄₁₆	7	14.53	13.03



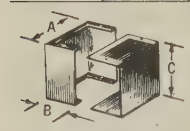
Chassis Bases, Cabinets, and Cases

ALUMINUM CHASSIS BASES

Offer outstanding strength and rigidity for construction of amplifiers, meters and other components. Made from one piece of sheet metal. Welded on government-approved spot welders developed for aluminum. All sides folded in at the bottom for additional support assuring strength and durability. Natural finish aluminum alloy 5005 H-14. Are 18 ga., except †16 ga. or *14 ga. ‡Prepunched for easy assembly of chassis mounting brackets.

Stock No.	Mfr's Type	Size Inches WxDxH	Wt., Lbs.	EACH 1-24	EACH 25-Up
736-0031	AC-431	4x6x2	½	3.25	2.90
736-0030	AC-430	4x6x3	½	3.63	2.10
736-0032	AC-432†	4x17x3	1¼	6.38	3.85
736-0002	AC-402	5x7x2	½	3.50	2.05
736R0029	AC-429	5x7x3	¾	3.88	2.35
736-0003	AC-403	5x9½x2	½	3.75	2.25
736-0021	AC-421	5x9½x3	¾	4.50	2.75
736-0004	AC-404	5x10x3	¾	4.50	2.75
736-0022	AC-422	5x13x3	¾	5.25	3.10
736-0033	AC-433†	6x17x3	1¼	7.63	4.55
736-0005	AC-405	7x7x2	½	3.75	2.25
736R0006	AC-406	7x9x2	½	3.88	2.35
736R0007	AC-407	7x11x2	¾	4.50	2.75
736-0008	AC-408	7x12x3	1	5.50	3.35
736-0009	AC-409	7x13x2	¾	4.63	2.85
736-0011	AC-411†	7x15x3	1½	7.63	4.55
736-0023	AC-423†	7x17x3	1¾	7.63	4.55
736-0024	AC-424†	8x12x3	1½	6.50	3.85
736-0025	AC-425†	8x17x2	1½	6.75	4.05
736-0012	AC-412†‡	8x17x3	1¾	7.88	4.75
736R0013	AC-413†	10x12x3	1½	7.88	4.75
736-0014	AC-414†	10x14x3	1¾	7.88	4.75
736-0015	AC-415†‡	10x17x2	1¼	7.63	4.55
736-0016	AC-416†‡	10x17x3	2	8.63	5.20
736-0027	AC-427*‡	10x17x4	3½	12.25	7.35
736-0026	AC-426*‡	11x17x2	2¼	9.50	5.70
736-0018	AC-418*‡	12x17x3	2¾	11.25	6.80
736-0019	AC-419*‡	13x17x2	2½	9.75	5.85
736-0020	AC-420*‡	13x17x3	2¾	11.75	7.00
736-0028	AC-428*‡	13x17x4	3¾	14.25	8.55
736-0204	AC-1404	4x5x2	¼	3.25	2.00
736-0205	AC-1405	4x6x1½	¼	2.88	1.75
736-0208	AC-1408	5x9x1½	⅜	3.50	2.05
736-0213	AC-1413	6x8x2	½	3.75	2.25
736-0218	AC-1418	8x10x2½	1	5.63	3.40
736-0219	AC-1419‡	8x12x2½	1	6.63	3.95
736X0222	AC-1422†	10x17x5	2½	11.86	10.65
736X0225	AC-1425†	12x17x2	1½	9.88	5.95
736X0226	AC-1426*	13x17x5	3½	13.05	11.75
736X0227	AC-1427*	14x17x3	3	13.75	8.35
736X0228	AC-1428*	15x17x4	3½	13.05	11.75
736X0229	AC-1429*	15x17x6	3¾	17.95	16.10
736X0230	AC-1430*	17x17x3	3¼	11.70	10.55
736X0231	AC-1431*	17x17x4	4	15.53	13.95

ALUMINUM TWO-PIECE MINIBOXES

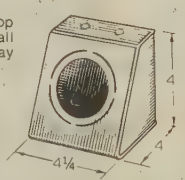


Self-contained units for use where shielding as well as protection from dust and dirt is desired. May be used for phono amplifiers, VHF and UHF converters, low-pass TVI filters, test and measurement units, etc. Two-piece construction permits installation of components or wiring modifications. Flanges assure low RF leakage and provide high rigidity. Choice of snap-lock fastening or screw fastening; all hardware supplied. Made of high-quality aluminum — Gray Hammertone or Natural Finish. Easy to cut, punch and drill.

Size in. AxCxB	Wt., Lbs.	Gray Hammertone	Mfr's Type	EACH 1-24	EACH 25-49	EACH 50-Up	Natural Aluminum	Mfr's Type	EACH 1-24	EACH 25-49	EACH 50-Up
2¾x2⅛x1⅞	¼	736R3633	CU 2100-A	2.00	1.30	1.15	736R3651	CU-3000 A	1.75	1.15	1.05
3¼x2⅛x1⅞	¼	736R3634	CU-2101-A	2.00	1.30	1.15	736R3652	CU 3001-A	1.75	1.15	1.05
4x2⅛x1⅞	¼	736R3635	CU-2102-A	2.13	1.40	1.25	736R3653	CU-3002-A	1.88	1.25	1.15
4x2¼x2¼	¼	736R3636	CU-2103-A	2.38	1.60	1.45	736R3654	CU-3003-A	2.13	1.40	1.25
5x2¼x2¼	¼	736R3637	CU-2104-A	2.63	1.80	1.60	736-3655	CU-3004-A	2.38	1.60	1.45
5x4x3	½	736R3638	CU-2105-A	3.25	2.15	1.95	736R3656	CU-3005-A	2.38	1.60	1.45
5¼x3x2½	¼	736R3639	CU-2106-A	2.88	1.85	1.65	736-3657	CU-3006-A	2.38	1.60	1.45
6x5x4	¾	736R3640	CU-2107-A	4.13	2.70	2.45	736R3658	CU-3007-A	3.25	2.15	1.95
7x5x3	¾	736R3641	CU-2108-A	4.63	3.10	2.80	736-3659	CU-3008-A	4.13	2.70	2.45
8x6x3½	1	736R3642	CU-2109-A	6.63	4.05	3.65	736-3660	CU 3009 A	5.25	3.50	3.15
10x6x3½	1¼	736-3643	CU-2110-A	6.63	4.40	3.95	736-3661	CU 3010 A	5.63	3.75	3.40
12x7x4	1¾	736R3644	CU-2111-A	9.00	6.00	5.40	736-3662	CU-3011-A	7.88	5.25	4.75
12x2½x2¼	¾	736-3647	CU-2114-A	4.50	3.00	2.70	. . . . .	. . . . .	. . . .	. . . .	. . . .
4x2x2¾	¼	736-3648	CU-2115-A	2.38	1.60	1.45	. . . . .	. . . . .	. . . .	. . . .	. . . .

UNIVERSAL METER CASES

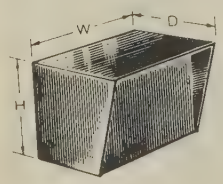
Sloping-front meter housings. Panel cut for 2" meters; knockout ring enlarges hole for 3" meters. Case top has two ⅜" knockouts for mounting terminal posts or feed through insulators. Type CMA1930 accepts small components as well as meter. *Steel; aluminum. Use aluminum case to minimize magnetic field. In light gray hammertone.



Stock No.	Mfr's Type	Size, In. HxWxD	Wt. Lbs.	EACH 1-24	EACH 25-49	EACH 50-99	EACH 100-Up
736-2901	CM1935*	4¼x4x4	1	4.00	2.70	2.45	2.15
736-2903	CMA1936†	4¼x4x4	¾	4.75	3.15	2.85	2.50
736-2902	CMA1930†	4¼x6x4	1	7.88	5.30	4.75	4.25

COWL-TYPE MINIBOXES

Prevents glare from overhead lights; protects controls and dials. Constructed of sturdy .040 alum. alloy. Choice of finish, see table.

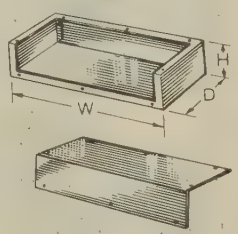


GRAY HAMMERTONE

Stock No.	Mfr's Type	Size Inches HxWxD	Wt., Lbs.	EACH 1-49	EACH 50-99	EACH 100-Up
736-6900	SC-2130	6x10x7	1¾	10.70	9.65	8.55
736-6901	SC-2131	7x12x8	2	11.69	10.50	9.30
736-6902	SC-2132	3x8x5	1	9.25	5.60	4.95
736-6903	SC-2133	5x5x5	¾	9.38	5.65	5.05

NATURAL ALUMINUM

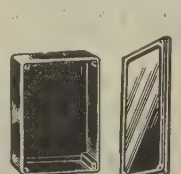
Stock No.	Mfr's Type	Size Inches HxWxD	Wt., Lbs.	EACH 1-49	EACH 50-99	EACH 100-Up
736R6904	SC-3030	6x10x7	1¾	11.63	7.00	6.20
736-6905	SC-3031	7x12x8	2	12.50	7.50	6.70
736-6906	SC-3032	3x8x5	1	6.63	3.95	3.50
736-6907	SC-3033	5x5x5	¾	7.00	4.20	3.70



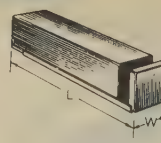
PLASTIC CASES AND PANELS

Molded plastic cases (Figure A) and matching plastic panels (Figure B) for mounting test equipment. Meters fit into cases with flanges. Cases accept sizes up to 4⅝" x 4³/₁₆". Cases have recessed corner bosses — flush mounting with cover. All cases require ½ in., No. 6 self-tapping screws, except Type 220 which requires 4-36 x ½ in. screws. Walls and covers of cases are made of firm ⅛ inch thick plastic. Shpg. wt.: Cases, 1½ lbs.; Panels, 1 lb.

Stock No.	Mfr's Type	Fig.	Size Inches	EACH 1-24	EACH 25-49	EACH 50-249	EACH 250-Up
543-0220	220	A	4x2⁷/₈x1⁹/₁₆	.70	.56	.46	.40
543R0230	230	A	5x4¹/₄x1³/₄	1.10	.88	.73	.63
543-0240	240	A	6¹/₄x3³/₄x2	1.25	1.00	.83	.72
543-0260	260	A	6³/₁₆x5⁹/₃₂x2⁵/₁₆	1.88	1.50	1.24	1.07
543-0280	280	A	8¹/₈x7¹/₁₆x2⁷/₈	3.78	3.02	2.49	2.16
543-0231	231	B	4³/₄x4¹/₁₆x1/₁₆	.40	.32	.26	.23
543R0221	221	B	3³/₄x2⁵/₈x1/₁₆	.23	.18	.15	.13
543-0241	241	B	6¹/₄x3³/₄x1/₈	.88	.70	.58	.50
543-0261	261	B	6¹/₂x4³¹/₃₂x1/₈	1.48	1.18	.97	.84
543-0281	281	B	8⁷/₁₆x7⁷/₁₆x1/₈	2.33	1.86	1.53	1.33



MINISLIDES

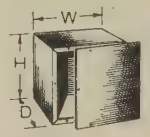


Allow easy access to interior. Base may be mounted in any position in rack cabinet. Fabrication of .050 aluminum. Assemble with 4 self-tapping screws.

GRAY HAMMERTONE

Stock No.	Mfr's Type	Size Inches LxWxD	Wt., Lbs.	EACH 1-49	EACH 50-99	EACH 100-Up
736-5000	MS-2150	13x3⅛x2⅝	1	10.13	6.75	6.10
736-5002	MS-2152	17x3⅛x2⅝	1¼	11.00	7.30	6.55

METAL UTILITY CABINETS



General-purpose cabinets for small area housings. Two removable panels, both front and rear, provide easy access to inside. **Steel cabinets in Black Rinkletex or Gray Hammertone finish; aluminum cabinets in Natural Aluminum or Gray Hammertone finish.**

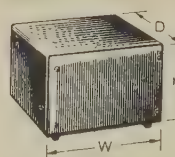
STEEL

Size Inches HxWxD	Black Rinkletex	Gray Hammertone	Mfr's Type	Wt., Lbs.	EACH 1-49	EACH 50-99	EACH 100-Up
4x4x2	736-3626	736-3625	CU-883	¾	3.25	2.00	1.75
4x5x3	736-3615	736-3614	CU-728	1	3.88	2.35	2.10
6x5x4	736R3617	736R3616	CU-729	1¾	4.13	3.50	3.10
6x6x6	736-3628	736-3627	CU-1098	2¼	6.63	4.00	3.55
9x6x5	736R3629	736R3630	CU-1099	3	7.50	4.50	4.00
10x8x7	736-3619	736-3618	CU-879	3¼	10.25	6.10	5.45
10x10x8	. . . . .	736-3620	CU-880	6¼	11.88	7.15	6.35
12x7x6	. . . . .	736-3631	CU-1124	5	10.25	6.10	5.45
12x11x8	736-3623	736-3622	CU-881	8½	13.13	7.90	7.00
15x9x7	. . . . .	736-3624	CU-882	5	13.25	7.90	7.05

ALUMINUM

Size Inches HxWxD	Mfr's Type	Natural Finish	EACH 1-49	EACH 50-99	EACH 100-Up	Gray Hammertone	EACH 1-49	EACH 50-99	EACH 100-Up
4x4x2	AU-1083	736-1008	4.13	2.50	2.20	736-1009	4.88	2.95	2.65
4x5x3	AU-1028	736-1000	4.38	2.60	2.30	736-1001	5.50	3.25	2.90
6x5x4	AU-1029	736-1002	4.88	2.95	2.65	736-1003	5.88	3.50	3.10
6x6x6	AU-1039	736-1004	7.25	4.30	3.80	736-1005	7.75	4.70	4.15
9x6x5	AU-1040	736-1006	8.00	4.80	4.30	736-1007	9.75	5.85	5.20

UTILITY CABINETS



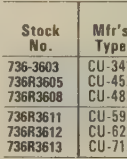
Made of 20-gauge steel. Rounded contoured corners; flanged panels have rounded corners. Rear panel is louvered. Solid front panel. Both front and rear panels attached with four 6-32 screws each. Body in Dark Gray textured finish; panels are Light Gray textured finish providing handsome appearance. Shpg. wts.: CU-463, 1½ lbs.; CU-465, 2 lbs.; CU-585, 3 lbs.; CU-587, 3½ lbs.; CU-7127, 5¾ lbs.

Stock No.	Mfr's Type	Size Inches HxWxD	EACH 1-24	EACH 25-49	EACH 50-Up
736-3606	CU463	4⅞₂x6½₂x3¾	13.38	8.00	7.10
736-3607	CU465	4⅞₂x6½₂x5¾	10.20	9.20	8.15
736-3609	CU585	5½₂x8½₂x5¾	13.05	11.75	10.45
736-3610	CU587	5½₂x8½₂x7¾	14.45	12.95	11.50
736-3669	CU7125	7½₂x12½₂x5¾	13.28	11.95	10.60
736-3670	CU7127	7½₂x12½₂x7¾	13.94	12.50	11.10

CONVERTA BOXES made of tough 20-gauge steel with welded base and two-sided cover attached by self-tapping screws (included). Cadmium plated. Mount sensitive components, controls to any surface of these enclosures.

Stock No.	Mfr's Type	Size Inches HxWxD	Wt., Lbs.	EACH 1-24	EACH 25-49	EACH 50-99	EACH 100-Up
736-3603	CU-341	1½x4x3	½	5.50	3.25	2.90	2.70
736R3605	CU-452	2x5x4	1	5.38	3.25	2.90	2.70
736R3608	CU-482	2x8x4	1¼	5.63	3.40	3.00	2.80
736R3611	CU-592	2½x9½x5	1¾	6.00	3.60	3.20	3.00
736R3612	CU-622	2½x12x6	2¾	6.63	4.00	3.55	3.35
736R3613	CU-712	2½x15x7	3½	8.88	5.30	4.70	4.45

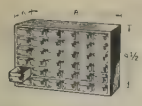
ECONOBOXES

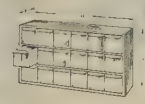


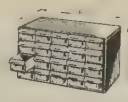
Versatile die-cast utility boxes for applications requiring a sturdy structure. Especially desirable for concealed or other interior use where safety enclosure is required. Feature close-fitting flanged lids fastened to bosses in the body. The close fit of the lids and the thickness of the aluminum alloy combine to provide excellent screening properties. Cast of LM-380 aluminum.

Stock No.	Mfr's Type	Thickness Inches	Wt. Lbs.	LxWxH	EACH 1-24	EACH 25-49	EACH 50-Up
736R3600	CU 124	1/16	½	4³/₈x2³/₈x1¹/₁₆	3.50	2.05	1.85
736R3601	CU-234	3/32	¾	4¹¹/₁₆x3¹¹/₁₆x2¹/₁₆	5.50	3.25	2.90
736-3602	CU-247	3/32	1¼	7³/₈x4¹¹/₁₆x2¹/₁₆	8.88	5.30	4.70
736-3604	CU347	3/32	1½	7³/₈x4¹¹/₁₆x3¹/₁₆	9.63	5.80	5.15

Utility Cabinets


17-136


17-018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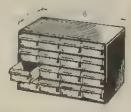
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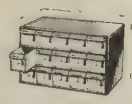
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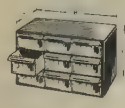
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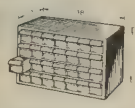
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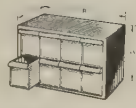
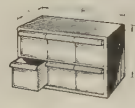
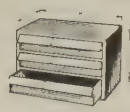

18-608


18-956


18-803

COMPACT MODULAR CABINETS WITH STEEL FRAMES AND STYRENE DRAWERS

Efficient, organized storage. Features heavy-duty steel frames and sturdy molded styrene drawers. Cubic design storage areas provide maximum use of minimum space. Standard 18-in. width frame can be easily hung from wall, fits into standard shelving or stacks on work bench. Nesting feet provide stacking stability. Keyhole slots for easy wall mounting. Baked enamel charcoal hammertone finish is chip-proof and scratch resistant. Transparent drawers allow quick visual check and are easily removed. All models feature dividable drawers that can be easily partitioned into subcompartments allowing efficient storage of large or small items. Dovetail dividers lock securely in slots. Two types of molded styrene drawers; both corrosion proof, have safety tab. **Gray Heavy Duty:** virtually unbreakable, hi-impact styrene. **Transparent:** for visual inventories.

CABINET ORDER REFERENCE

Cabinets With Transparent Drawers		Cabinets With Heavy-Duty Drawers		Drawers Per Cab.	Drawer Size in Inches			Cabinet Size in Inches			Ship. Wt. Lbs.	EACH	
Stock No.	Mfr's Type	Stock No.	Mfr's Type		W.	H.	D.	W.	H.	D.		1-9	10-Up
723R1713	17-136	.....	.....	36	2¾	1¼	5⅞	18	9½	6	12	23.03	19.70
.....	.....	723R1822	18-228	28	2⅛	2⅛	11	18	11	11	22	38.06	32.55
723R1701	17-018	.....	.....	18	2¾	2½	5⅞	18	9	6	10	23.03	19.70
723-1732	17-320	723R1832	18-320	20	3⅛	2⅛	11	18	11	11	21	34.32	29.35
723R1741	17-416	723R1841	18-416	16	4	2⅛	11	18	11	11	20	34.32	29.35
723-1771	17-715	723-1871	18-715	15	3⅛	3 1/32	11	18	11	11	20	34.32	29.35
723R1790	17-909	723-1890	18-909	9	5¼	3 1/32	11	18	11	11	18	34.32	29.35
.....	.....	723-1860	18-608	8	4	4¾	11	18	11	11	22	34.32	29.35
.....	.....	723-1895	18-956	6	5¼	4¾	11	18	11	11	22	34.32	29.35
.....	.....	723-1880	18-803	3	16¾	3 1/32	11	18	11	11	18	30.06	25.70

One cross divider furnished per drawer except 18-803.

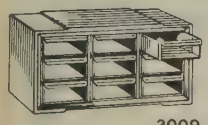
CROSS DIVIDERS

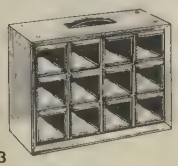
Stock No.	Mfr's Type	Fits Cabinet	Package Quantity	Per Pkg. 1-9	Per Pkg. 10-Up
723R4050	40-901	17-018	25	2.60	1.83
723R4090	40-501	17-136	25	1.40	.98
723R4220	42-201	18-228	25	4.08	2.92
723R4230	42-301	17-320, 18-320	25	2.60	1.83
723R4240	42-401	17-416, 18-416	25	3.13	2.22
723-4310	43-101	17-715, 18-715	25	3.90	2.75
723-4330	43-301	17-909, 18-909	25	4.15	2.93
723-4440	44-401	18-608	25	4.98	3.52

LONG DIVIDERS

Stock No.	Mfr's Type	Fits Cabinet	Package Quantity	Per Pkg. 1-9	Per Pkg. 10-Up
723-4212	42-121	17-136	25	3.13	2.22
723-4243	42-431	17-320, 18-320 17-416, 18-416	10	2.60	1.83

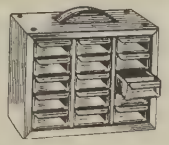
ECONOMY STORAGE CABINETS


3009


3013

Type 3013. Features 12 compact drawers measuring 2¾ x 1¼ x 5¾" and one super-large 8¾ x 2½ x 5¾" drawer. Unitized steel frame has gray baked enamel finish, measures, 10 x 9 x 6½". Tote handle and locking door. "See-Thru" drawers. Unit can be stacked or wall mounted, keyholes on back.
723R3013. Shpg. wt., 5¾ lbs.....**Each 10.80**

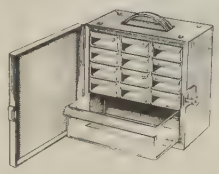
3012


3015

Type 3015. 15 "See-Thru" 2¾ x 1¼ x 5¾" drawers. Tote handle for portability. Unitized 8 x 6" frame. Adjustable dividers. Baked enamel finish.
723R3015. Shpg. wt. 4 lbs.....**Each 6.93**

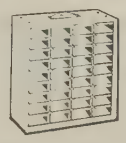
Type 3009. Molded plastic frame. 9 "See-Thru" 2¾ x 1¼ x 5¾" drawers. Baked Avocado finish. Adjustable drawer dividers and labels. Size, 10 x 9½ x 6½".
723-3009. Shpg. wt. 4 lbs.....**Each 4.68**

Type 3012. 12 double deep drawers allow storage of large items. Each "See-Thru" drawer, 2½ x 2¾ x 5¾". Steel frame is stackable; measures 9½ x 13 x 6½". Baked enamel finish is blue. Carrying handle for portability. Dividable drawer. Easy wall mounting.
723R3012. Shpg. wt. 7 lbs.....**Each 10.80**


3018

3036

Type 3018. 18 "See-Thru" drawers, each 2¾ x 5¾ x 1¼", in a heavy-duty 10 x 9½ x 6½" unitized steel frame. Metallic blue baked enamel finish. Unbreakable carrying handle.
723-3018. Shpg. wt. 4 lbs.....**Each 8.30**


3024

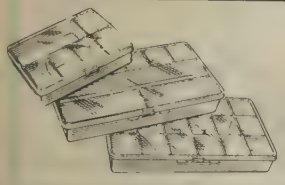
3050

Type 3024. 24 "See-Thru" styrene drawers—1¼ x 2¼ x 5¾" each. Metallic blue finish, unitized steel frame; 9 x 10 x 6". One divider, label per drawer.
723R3026. Shpg. wt. 7 lbs.....**Each 10.80**

Type 3036. 36 compact drawers—each 1¼ x 2¾ x 5¾". Sturdy unitized steel frame measures 16½ x 13 x 6½". Durable and attractive baked enamel blue finish. Tote handle gives mobility to lightweight cabinet. "See-Thru" drawers have adjustable lock-tight dividers for smaller sectioning.
723R3036. Shpg. wt. 8 lbs.....**Each 10.54**

Type 3050. Ideal for storage, protection, organization of shop or office small parts. 50 "See-Thru" drawers—1¼ x 2¾ x 5¾". Indexing with labels and one divider per drawer. Unitized steel frame with blue finish. 15 x 16 x 6½".
723R3050. Shpg. wt. 8 lbs.....**Each 12.84**

PLASTIC PARTS STORAGE BOXES



Handy-sized boxes are perfect for organizing small parts such as screws, nuts, solder lugs, small connectors in the shop. Ideal for small household articles—clips, jewelry, etc. High-impact polystyrene box with clear lid. Brass hinge pins for extra long wear. Come in red, blue or yellow—we cannot guarantee color.

Model B6. Compact box has six assorted size compartments. Size, 1½ x 6¾ x 5". **604-0010. 1-9 Each 1.73 10-Up Each 1.55**

Model B7. Small box with seven assorted-size compartments. Size, 1½ x 6¾ x 5". **604-0020. 1-9 Each 1.73 10-Up Each 1.55**

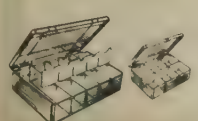
Model B9. Larger box has nine assorted-size compartments. Size, 1½ x 10½ x 6". **604-0030. 1-9 Each 3.48 10-Up Each 3.12**

Model B18. Larger box with 18 small compartments. Ideal for screws, solder lugs, etc. Size, 1½ x 10½ x 6". **604-0040. 1-9 Each 3.48 10-Up Each 3.12**

Stock No.	Mfr's Type	No.*	Compartment Sizes Inches	Overall Size Inches	Lbs.	EACH 1-9	EACH 10-Up
981-1250	A250	1	5⅞x3⅝	6¼x4x1 11/16	1	1.18	.63
981-1203	A203	6	1¼x3 15/16	8¼x4½x1⅜	1½	1.58	.84
981-1210	A210	9	8—1⅜x1⅜ 1—1⅛x3¼	7x3¾x1¼	1	1.08	.58
981-1812	A812	12	2x4 3/16x2⅛	13⅛x9x2 1/16	1	5.73	3.06
981-1201	A201	12	6—1¼x1¼; 4—1¼x2; 2—1⅛x3 1/16	8¼x4½x1⅜	1½	1.58	.84
981-1612	A612	12	6—1⅜x1 13/16 6—1⅜x4	11x6¾x1¾	2½	3.53	1.88
981-1200	A200	18	1¼x1¼	8¼x4½x1⅜	1½	1.58	.84
981-1618	A618	18	1⅝x1 15/16	11x6¾x1¾	2½	3.53	1.88
981-1818	A818	18	12—2x2; 6—2x4 1/16	13⅛x9x2 1/16	3	5.85	3.12
981-1824	A824	24	2x2	13⅛x9x2 1/16	3½	6.13	3.27
981-1166	A166	36	1½x1 1/16x1 5/16	10x7x1 13/16	3½	4.05	2.16

Rugged, all-plastic boxes with hinged tops. Lightweight, scratch-resistant, easy to clean. One to 36 compartments. Molded of clear polystyrene—"see-thru" feature. Strong hinge. A250 has removable cover. *Total compartments in box.

SUPER-STRENGTH "SEE-THRU" PLASTIC BOXES



Keep small items safe and neat. Lightweight and durable. All have hinged cover. Constructed of clear styrene; compartmented for sorting screws, washers. *Partitions form up to 15 compartments. Shipping weight 1 lb.

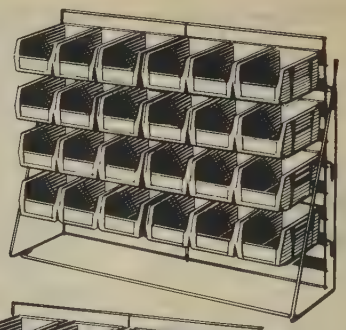
Stock No.	Type No.	Size, Inches	Compartments	EACH 1-9	EACH 10-Up
723-3075	05-206	4¾x2⅝x1"	6 Equal	.53	.44
723-3090	05-505	10 7/16x5⅞x2"	5 Fixed; 2 Adj.*	2.78	2.31

Contact Allied Electronics for Larger Quantity Prices

Bench Racks, Storage Shelves, Workbenches, Carts

BIN BENCH STAND

NEW!



24-Bin Rack

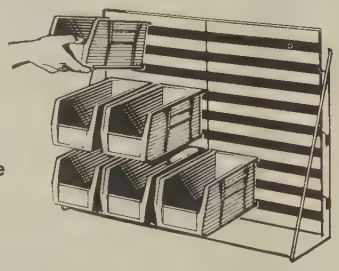
- Steel Frame
- 120-lb. Capacity
- Ideal for Keeping Small Parts

Compact, steel bench stand will accommodate three different bin sizes without change or adjustment. Sturdy, welded steel frame snaps together in just a few seconds and has a 120-lb. capacity. No nuts or bolts required. Ideal for small assembly or parts storage. Accepts the polypropylene bins below. The bins feature interlock for easy stacking, anti-slide front stop, finger grips, label holder and slot for inventory card, heavy reinforcing ribs to prevent spreading under load. Bins are interchangeable, stackable. This bench stand is a compact 27½ x 20 x 8". Black, baked enamel finish.

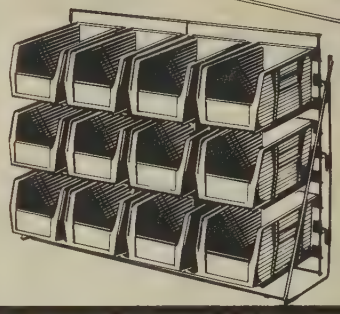
723-9860. Bench Stand Only, Shpg. wt. 11 lbs. ..... **Each 22.04**

STACKING STORAGE BINS FOR ABOVE

Stock No.	Mfr's Type	Outside Dia. Inches			EACH	
		L	W	H	1-23	24-Up
723-3021	30-210	5⅜	4⅛	3	.73	.52
723-3022	30-220	7⅜	4⅛	3	1.35	.96
723-3023	30-230	10⅞	5½	5	3.30	2.35
723-3024	30-240	14¾	8¼	7	6.60	4.71

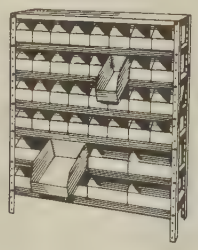


Storage Rack



12-Bin Rack

40-BIN STORAGE RACK



MODEL CC40. Keeps small parts, tools, and hardware in one central location. Stop tabs prevent accidental removal of bins from front or back. Drawer cannot be pushed in too far or pulled out until it spills. Bins are "C" flute corrugated board, 125 lb. test. Set up easily. Total of 40 drawers: 32—4" w. x 11½" d. x 4½" h. 8—8" w. x 11½" d. x 4½" h. Seven-shelf steel rack is 12" deep x 36" wide x 40" high. Shipped KD. Easy assembly.

548R0240. Shpg. wt. 37 lbs. . **Each 37.50**

STEEL STORAGE SHELVES

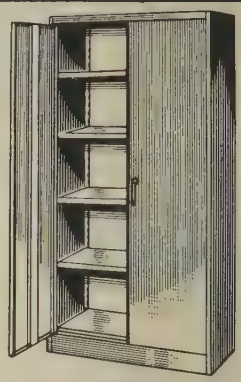
- Heavy-Duty 22-Gauge Shelves
- Adjustable
- 450 Lbs. Test Per Shelf
- Gray Baked Enamel Finish

Each of the six shelves holds 450 lbs. and can be adjusted on 1" centers without disturbing shelves in adjoining units. Kwik Klip — no nuts, bolts, or special tools required. Shipped knocked down for easy assembly.

Stock No.	Mfr's Type	Shelf Depth	Wt. Lbs.	EACH	
				1-9	10-Up
548U2912	2912-6	12"	54	30.52	25.30
548R2918	2918-6	18"	67	39.18	32.48

548R0318. S-18. 18" shelf ..... **Ctn. of 4, 18.32**

HEAVY-DUTY ALL-STEEL STORAGE CABINET

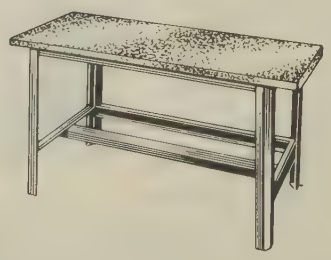


- Easy Assembly
- Gray Enamel
- Lockable Handles

MODEL 7000. Full 72" of height provides maximum storage space. Four shelves adjust on 1½" increments to meet specific storage needs and accommodate even large size office supplies. Two swing out doors with locking handles discourage pilferage. Built of lifetime steel. 36" wide x 18" deep x 72" high. 110 lbs. Shipped K.D.

548R4000 ..... Each 102.24

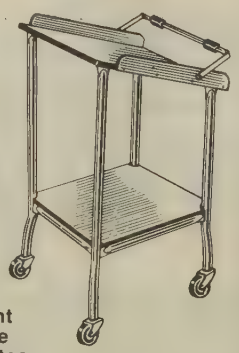
STEEL WORK BENCH



Hard 1" pressed wood bench top supports 200 lbs. per sq. ft. Braced, one piece welded 16-gauge legs. Easily assembled. Shipped KD. Shpg. wt., 76 lbs.

Stock No.	Mfr's Type	Size	EACH
548U0580	UB800	34 x 30 x 72"	35.45

ALLIED MODEL 8000 MOBILE TEST TABLE



- Rugged, Lightweight
- Attractive Low Price
- Assembles in Minutes

Slanted top supports instruments at convenient angle. Sturdy casters provide easy mobility. Support arm adjusts for various sizes. 17x19" top. Height, 34". Insulated top. Molded edges. Tubular steel arms have 1" dia. Assembles in 5 minutes without special tools.

647U8000. Shpg. wt. 23 lbs. ..... **Each 26.89**

ALL-PURPOSE SERVICE CART

Carries up to 500 lbs. Two trays keep smaller items from falling off. Trays spaced 20" apart to handle larger loads. Top trays reverse for work surface or to allow for wider items. Built of 14 and 20-gauge steel. 5" hard rubber casters, two stationary and two swivel. 32" high.

Stock No.	Size	Wt. Lbs.	EACH	
			1-9	10-Up
548-R0424	24 x 36 x 32"	56	57.38	47.56
548-0416	30 x 16 x 32"	32	48.53	40.23

Handles and Knobs

Most popular utility handles very precisely made of brass, die cast alum., chrome plated steel or chrome plated brass. Applications unlimited! All come complete with mtg. hdwe. and accessories.

UTILITY HANDLES

TYPE H-9100 WITH 1-IN. HAND CLEARANCE

Ⓐ Chrome-plated solid brass. H-9100, H-9101: 1x1¼"; H-9102, H-9103: ⅝x1¼". Incl. two screws. **Sold per pair.**

Stock No.	Mfr's Type	Mtg. Ctrs. Ins.	PER PAIR 1-49	50-99	100-149	150-Up
736-4300	H-9100	4	11.50	10.35	9.20	8.65
736-4302	H-9102	4	12.38	7.45	6.60	6.20
736-4303	H-9103	6	10.45	9.40	8.35	7.85

DIE CAST ALUMINUM TYPE H-9151

Ⓑ Silver anodized. Hand clearance: 1⅜" for H-9151; 1⅛" for H-9152. Four screws. **Sold per pair.**

736-4351	H-9151	5 3/32	13.05	11.75	10.45	9.80
736-4352	H-9152	3⅞	10.20	9.20	8.15	7.65

MODERN LOOK HANDLE TYPE H-9140

Ⓒ Die cast alum. with silver anodized finish. ¾" hand clearance. Incl. two nuts. **Sold per pair.**

Stock No.	Mfr's Type	Mtg. Ctrs. Ins.	PER PAIR 1-49	50-99	100-149	150-Up
736-4340	H-9140	3½	8.00	4.75	4.25	4.00

TYPES H-9115 AND H-9116

Ⓓ ⅜" steel rod with chrome plate finish. 1 5/16" hand clearance. Incl. two nuts. **Sold per pair.**

736-4315	H-9115	4	9.00	5.45	4.85	4.55
736-4316	H-9116	6	10.13	6.10	5.40	5.05

TYPE H-9166 BRASS HANDLE

Ⓔ ¼" dia. handle with chrome-plated finish. 1-inch hand clearance. Incl. two screws. **Sold per pair.**

736-4366	H-9166	1 23/32	4.63	2.60	2.30	2.20
736-4368	H-9168	3	4.88	2.95	2.65	2.50

RECESSED HANDLE TYPE H-9149

Ⓕ Recessed anodized aluminum handle fits flush into die cast receptacle. 1⅝" hand clearance. Standard on Bud Classic II cabinets. Incl.: (4) flat head screws, nuts. 1¼ lbs. **Per pair.**

Stock No.	Mfr's Type	Mtg. Ctrs. Ins.	PER PAIR 1-49	50-99	100-149	150-Up
736-4349	H-9149	4	17.80	16.00	14.25	13.35

STEEL HANDLE TYPE H-9110

Ⓖ ⅜" dia. steel, chrome-plated. 1¼" hand clearance. Incl. two screws. **Sold per pair.**

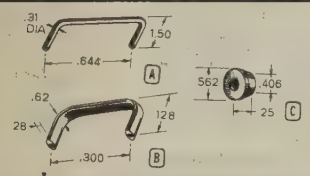
736-4310	H-9110	6	10.75	6.50	5.75	5.40

STEEL HANDLE TYPE H-9111

Ⓗ ⅜" dia. steel chrome-plated, except H-9114, ½" dia. 2 screws incl. 1" hand clearance, except H-9114, 1½". **Sold per pair.**

736-4311	H-9111	4	5.75	3.45	3.10	2.90
736-4312	H-9112	6	6.50	3.85	3.45	3.25
736-4313	H-9113	8	7.38	4.40	3.90	3.70
736-4314	H-9114	8	11.88	7.15	6.35	5.95

NICKEL PLATED BRASS HANDLES

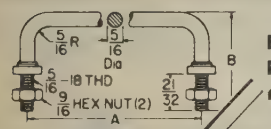


Nickel-plated brass. Rugged construction. Types 1015-12 and 1034-12 oval with 10-32 threaded mounting holes. Type 900-12 nickel-plated, brass mounting ferrule, fits Types 1005-12, 1010-12, 1013-12, and 1015-12 handles. Wt. 6 oz.

Stock No.	Mfr's Type	Fig.	Description	PKG. OF 2 1-9	10-24	25-Up	100-UP
971-0139	900-12	C	1.50" Brass Ferrule	.23	.18	.17	.12

Stock No.	Mfr's Type	Fig.	Mtg. Ctrs. In.	Hand Clearance In.	EACH 1-9	10-24	25-99	100-Up
971-0161	1005-12	A	6.44	1¾	2.68	2.14	1.79	1.52
971-0170	1010-12	A	4.25	1½	2.18	1.74	1.45	1.24
971-0173	1012-12	A	4.00	1½	2.15	1.72	1.44	1.22
971-0176	1013-12	A	4.56	1¼	2.23	1.78	1.49	1.26
971-0179	1015-12	B	3	1½	2.10	1.68	1.40	1.19
971-0221	1034-12	B	4.56	1½	3.85	3.08	2.57	2.19

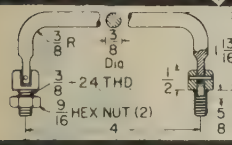
BRASS PANEL HANDLES



Meets federal specifications QQ-B-626, Composition 22, ½ hard. Polished nickel plate finish meets federal specifications QQ-N-290, Class I, Type VI. With male threaded stud. Matching ferrules, and nickel plated hex nuts included. Individually packaged. 6 oz. handle.

Stock No.	Mfr's Type	Diam. A x B Inches	EACH 1-9	10-Up
920-1711	1611	4x2⅛	3.38	2.70
920-2053	2053	4⅛x2⅛	3.43	2.74
920-1714	1614	6x2 1/16	3.98	3.19

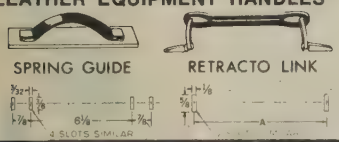
FOLDING BRASS PANEL HANDLE



With spring-loaded detents which snap into upright of left- or-right folded position. Supplied with brass, nickel plated hex nuts. Mount in ⅜" panel holes. Individually packaged. Polished nickel plate finish. Av. wt. 6 oz.

Stock No.	Mfr's Type	Finish	EACH 1-9	10-Up
920-1762	1662	Nickel Plated	9.45	7.56

LEATHER EQUIPMENT HANDLES

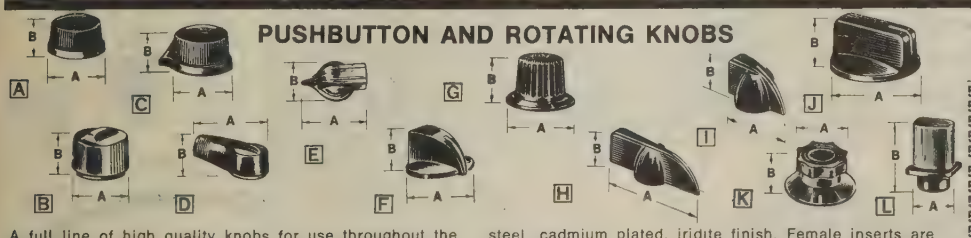


• **Black Genuine Leather** • **Handles Lie Flat When Not in Use, Move Up When Carrying**

Spring Glide contoured handle lies flat when not in use. Will not rattle under extreme vibration conditions. Chrome plated caps. 120 lbs. maximum load. **Retracto-Link** handle attaches with rivets or screws. Hdwe.: nickel plated steel. 60 lbs. max load. Av. wt. 3 oz.

Stock No.	Mfr's Type	Description	Lgth.	EACH 1-9	10-49	50-Up
920R2089	2089	Spring Glide	6	5.67	4.54	3.79
920-2093	2093	Retracto-Link	4½	4.86	3.89	3.25
920-2094	2094	Retracto-Link	5½	4.86	3.89	3.25
920-2095	2095	Retracto-Link	6¾	4.86	3.89	3.25

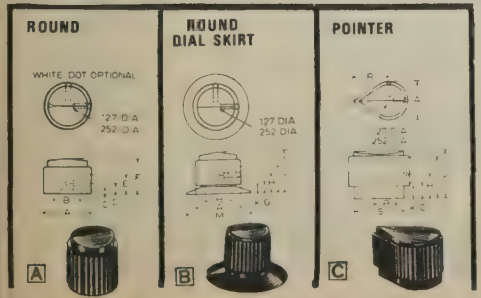
PUSHBUTTON AND ROTATING KNOBS



A full line of high quality knobs for use throughout the industry. This style selection will meet most commercial and industrial applications. Choose from grooved, round, pushbutton, pointer bar. All are quality plastic knobs of sturdy, long-lasting phenolic plastic, with a high gloss finish. Standard set screw construction provides one cup point slotted head set screw. All set screws are hardened steel, cadmium plated, iridite finish. Female inserts are half hard brass rod; male studs are steel cadmium plated. Mounting keys: * ¼" diameter molded hole and slotted set screw; ‡§ ¼" diameter female brass insert and slotted set screw; ‡ self locating friction fit for use on flat wire shaft .050 x .187.

Stock No.	Mfr's Type	Equiv. Type No.	Fig.	Size, In. A	B	EACH 1-99	100-499	500-Up
543R1450	1450	.....	A*	1/16	13/32	.15	.12	.10
543-1475	1475	.....	A*	1	½	.23	.18	.15
543-1700	1700	.....	B*	¾	19/32	.28	.22	.18
543R1400	1400	.....	C*	1/16	13/32	.15	.12	.10
543-1470	1470	.....	C*	1	½	.28	.22	.18
543-2120	2110	.....	D§	1⅜	19/32	.43	.34	.28
543-2150	2150	.....	E*	1¼	5/16	.23	.18	.15
543R1550	1550	.....	F*	1½	⅜	.23	.18	.15
543-1600	1600	.....	G*	1½	11/16	.30	.24	.20
543-1610	1610	.....	G*	29/32	15/32	.28	.22	.18
543-2300	2300	292-1L	I*	1¼	⅜	.18	.14	.12
543-2301	2300-A	292-3L	I§	1¼	⅜	.30	.24	.20
543-2351	2350-A	293-3L	H§	2	⅜	.43	.34	.28
543R1500	1500	.....	J*	1½	5/16	.23	.18	.15
543-4108	4108	.....	K§	2 1/16	29/32	1.28	1.02	.85
543-2190	5149-A	.....	L‡	½	5/64	.13	.10	.08

STANDARD SERIES ROUND AND POINTER KNOBS



Hi-impact polycarbonate with corrosion-resistant alum. inserts for max. strength. Two set screws: 4-40 UNC-3A on 70 Series; 8-32 UNC-3A on 90. *Meets MIL MS91528C. †Gray.

Diameter: 70—¾"; 90—1". **Type:** 1—Plain Round; 3—Dial Skirted Round; 4—Unskirted Pointer. **Style:** BL—Backlighted Skirt. **Shaft Hole Size:** 2—.252". **Finish:** G—Matte Finish.

KNOB DIMENSIONS
EXPLANATION OF TYPE NUMBER
(FIGS. A, B, C)

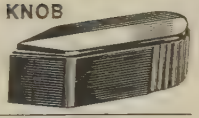
50-3BL-1G
DIAMETER — TYPE — STYLE — SHAFT — SIZE FINISH

Series	A +.030 −.010	B min	E min	F ±.303	J ±.303	M max	S max
70	.700	.485	.405	.610	.782	1.150	1.000
90	.900	.640	.520	.790	1.010	1.525	1.345

Stock No.	Mfr's Type	Shaft Dia. In.	Fig.	EACH 1-24	25-99	100-199	200-Up
904-5011	70-1-2G	.252	A	1.48	1.14	.97	.91
904-5081	70-3BL-2G*	.252	B	4.25	3.27	2.78	2.62
904-5156	G90-4-2G*†	.252	C	1.48	1.13	.96	.90

Knobs and Accessories

BAR POINTER KNOB



High impact, crack resistant, polycarbonate with alum. insert for max. strength. Two set screws provided.

Stock No.	Mfr's Type	Shaft Dia. In.	EACH 1-24	25-99	100-199	200-Up
904-5358	125-7-2G	.252	2.05	1.56	1.33	1.25

STANDARD SERIES COLOR-KEYED TACTILE KNOB

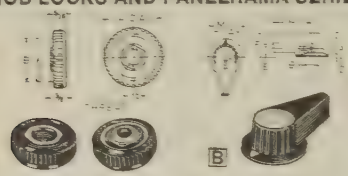
Colored top: Intensity blue; Tune orange; Dimmer white; Gain red; Focus violet; Range yellow. Polycarbonate with alum. inserts. Two set screws. When ordering specify color. *See explanation of type no's, bottom of p.187. Shaft dia. .252".

904-5244 Type 70-3-2G....1-24 Each 1.70
25-99...Each 1.30 100-199...Each 1.11
200-Up .....Each 1.04

DIMENSIONS FOR STANDARD SERIES TACTILE SHAPE KNOB

Series	A +.030 −.010	B min	C min	D max	E min	F min	G max	H max	I min	J max	K max	R ±.020	S ±.050
70	.700	.485	.026	.187	.405	.188	.369	.680	.568	.187	1.150	.630	1.075

KNOB LOCKS AND PANELRAMA SERIES



A B

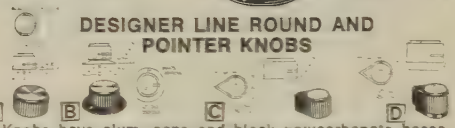
Knob Locks (Fig. A) used only with standard round and pointer knobs. Panelrama Bar Pointer (Fig. B) with dial skirt is high-impact acrylonitritebutadiene-styrene with black matte finish capped by an epoxy-coated alum. disc. Metal shaft inserts and two set screws.

DIMENSIONS FOR PANELRAMA SERIES (FIG. B)

Series	A ±.025 −.005	B min	C min	D max	E min	F ±.030	H max	M max
PS7	.720	.520	.120	.290	.625	.813	1.120	1.060

Stock No.	Mfr's Type	Shaft Dia. In.	Fig.	EACH 1-24	25-99	100-199	200-Up
904-5185	KL701=	.....	A	1.70	1.32	1.12	1.06
904-5186	KL701G=	.....	A	1.83	1.40	1.19	1.12
904-5214	PS7PD2K1R	¼	B	1.25	1.02	.87	.82

DESIGNER LINE ROUND AND POINTER KNOBS



A B C D

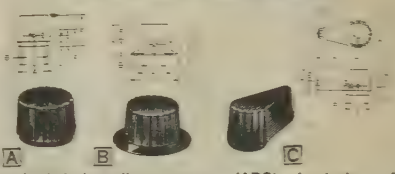
Knobs have alum. caps and black polycarbonate bases. Strong rust resistant alum. inserts. Comes with two set screws: 4-40 UNC-3A on 70 series and ⅛" shaft models. 8-32 UNC-3A on all others. *Prefix indicates diameter: 70—¾"; 90—1"; 125—1¼". Suffix G indicates matte (dull) finish, all other knobs have mirror finish.

Stock No.	Mfr's Type*	Shaft Dia. In.	Fig.	EACH 1-99	100-199	200-499	500-Up
904-5422	DS70-1-2G	.252	A	1.53	1.09	1.00	.95
904-5443	DS70-3-2G	.252	C	1.83	1.30	1.20	1.13
904-5444	DS90-3-2	.252	B	2.15	1.43	1.32	1.24
904-5445	DS90-3-2G	.252	B	2.05	1.46	1.34	1.27
904-5446	DS125-3-2	.252	B	2.40	1.67	1.54	1.45
904-5455	DS70-4-2G	.252	C	1.70	1.20	1.10	1.04
904-5457	DS90-4-2G	.252	C	1.75	1.24	1.14	1.08
904-5461	DS70-5-2G	.252	D	1.90	1.35	1.24	1.17

DIMENSIONS FOR DESIGNER KNOBS

Series	A −.030 −.010	B min	E min	F ±.030	I min	J ±.030	M max	S ±.030	T ±.030	V max.
DS70	.700	.485	.405	.590	.568	.780	1.150	.590	.765	1.000
DS90	.980	.640	.520	.735	.730	.980	1.525	.735	.978	1.345
DS125	1.250	.750	.455	.620	.605	.785	1.837	—	—	—

STANDARD SERIES KNOBS



A B C

Acrylonitritebutadiene-styrene (ABS). Lusterless finish, metal bushings. Two set screws: 4-40 UNC-3A, ⅛" shaft models: 6-32 UNC-3A, all other models. Shaft diameter: ¼". *Prefix 407—¾" dia.; 409—⅞" dia.; 412—1¼"; Suffix colors: K1, black.

Stock No.	Mfr's Type	Fig.	EACH 1-24	25-99	100-199	200-up
904-5383	407R2K1	A	.65	.51	.47	.44
904-5392	407D2K1	B	.80	.63	.58	.55
904-5395	409D2K1	B	.88	.67	.62	.58
904-5397	412D2K1	B	.90	.69	.64	.60
904-5401	409P2K1	C	.80	.63	.58	.55

DIMENSIONS FOR 400 SERIES CONTROL KNOBS

Series	A	B min	C min	D max	E min	F ±.030	G max	H max	J max
407	.720	.520	.120	.290	.625	.813	.640	1.120	1.060
409	.875	.660	.120	.290	.625	.813	.800	1.375	1.290
412	1.250	1.041	.120	.290	.625	.813	1.170	2.000	1.710

PLASTIC KNOBS WITH ALUMINUM TOPS

PKS-90B-10 PKS-1105B-10 PKA-50B PKB-70B PKP-1109B

Feature aluminum inlay on top, black plastic body molded-in brass insert, self-locking set screw.

PKS-90B-10. Natural anodized aluminum dial skirt with black arrow indicator; PKS-90B-10 has 0-10 numerals with 30° spacing. Spun aluminum inlay.

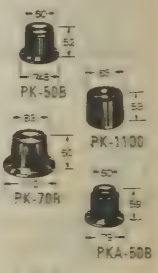
PKA-50B. Has slip-proof knurl. Extended skirt with white hairline indicator. Spun aluminum inlay.

PKB-70B. Large knobs have deep flutes. White indicator line on the skirt. Spun aluminum inlay.

PK-1100, PKP-1109B. Matching series of fluted knobs. PK-1100 available for ⅛ or ¼" shaft. PKP-1109B has pointer bar. Spun aluminum inlay.

PKS-1105B-10. Has 0.9 graduations spaced at 36° on aluminum dial skirt. Spun aluminum inlay.

Stock No.	Mfr's Type	Knob Dia.	Shft. Size	EACH 1-24	25-99	100-249	250-Up
700-6606	PK-50B	.551	¼"	.58	.35	.32	.30
700R6608	PK-70B	.709	¼"	.65	.40	.36	.34
700R6656	PKS-90B-10	.900	¼"	1.05	.65	.59	.55
700-6634	PKA-50B	.583	¼"	.90	.55	.50	.47
700-6637	PKB-70B	.750	¼"	.73	.45	.41	.38
700-6626	PK-1100-⅛B	.646	⅛"	.65	.40	.36	.34
700-6616	PK-1100B	.646	¼"	.65	.40	.36	.34
700-6651	PKP-1109B	.670	¼"	.90	.55	.50	.47
700-6657	PKS-1105B-10	.882	¼"	.98	.60	.54	.51



PK-50B PK-1100 PK-70B PKA-50B

MACHINED ALUMINUM KNOBS

KN-701 KN-700 KR-1 KNS-701

One-piece aluminum. Have set screw.

K-700 Standard Series. Has indicator line

KS700 Skirt Anodized Knob. Matches K-500 series. Solid aluminum skirt.

KN-500-⅛, 500, 700 Straight Knurl. Hairline indicator. Natural or Black.

KN-701 Black Arrowhead. Arrowhead indicator engraved on knurled body.

KNS-701 Arrowhead. Engraved arrowhead on natural aluminum skirt.

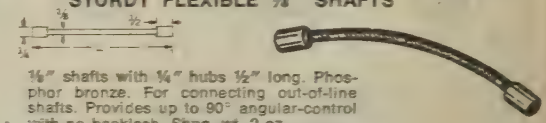
KR-1. Converts knob with ¼" shaft hole to fit ⅛" shaft.

*Complete Suffix Number of Allied Stock Number for Knob Color and Finish when Stock No. ends in X. Table shows options available.
1—Natural; Black Indicator
2—Black; White Indicator
3—Gold; Red Indicator
4—Natural, Black Top; Black Indicator
5—Black, Natural Top; White Indicator

Stock No.	Add Color Suffix*	Mfr's Type	Knob Dia.	Shft. Size	EACH 1-24	25-99	100-249	250-Up
700-310X	1	K-500-⅛	.430	⅛	1.48	.90	.81	.77
700-312X	1	K-700	.655	¼	1.63	1.00	.90	.85
700-341X	1, 2	KS-700	.650	¼	2.45	1.50	1.35	1.28
700-330X	1, 2	KN-500-⅛	.445	⅛	1.70	1.05	.95	.89
700-329X	1, 2	KN-500	.445	¼	1.70	1.05	.95	.89
700-331X	1	KN-700	.655	¼	1.80	1.10	.99	.94
700-3309	5	KN-701	.655	¼	2.20	1.35	1.22	1.15
700-3319	5	KNS-701	.656	¼	2.78	1.70	1.53	1.45
700-3313	KR-1 Shaft Reducer				.25	.15	.14	.13

KS-700 K-500 K-700 KN-500

STURDY FLEXIBLE ⅛" SHAFTS



⅛" shafts with ¼" hubs ½" long. Phosphor bronze. For connecting out-of-line shafts. Provides up to 90° angular-control with no backlash. Shpg. wt. 2 oz.

Stock No.	Mfr's Type	Lgth. (In.)	EACH 1-24	25-49	50-99	100-Up
920-0151	151	3	1.15	.92	.77	.65
920-0152	152	6	1.62	1.30	1.08	.92

SHAFT FITTINGS

Couplings for extending shafts; extenders for decreasing or increasing shaft diameter and length. †Brass, nickel-plated. 1 oz.

Stock No.	Mfr's Type	Fig.	Dimensions Inches A	B	C	D	EACH 1-9	10-49	50-99	100-Up
920-0120	120†	E	¼	¼	15/16	⅜	.54	.43	.36	.31
920-0150	150†	F	¼	¼	½	1¼	.88	.70	.59	.50
920-0160	160†	F	¼	⅜	½	⅝	.68	.54	.45	.38

ROUND ALUMINUM KNOBS

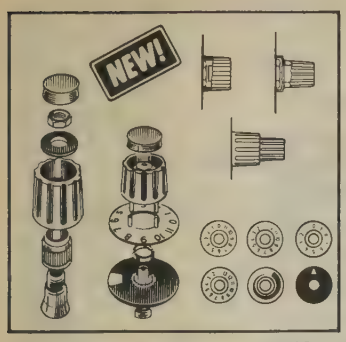
A B C D

- Ideal for Receivers, Test Equipment
- Straight Knurl or Diamond Knurl

Stock No.	Mfr's Type	Fig.	EACH 1-24	25-99	100-499	500-Up
971-0153	1000-2D	A	2.23	1.78	1.11	1.02
971-0101	500-2D	B	1.96	1.57	.96	.90
971-0100	310-2D	C	2.17	1.74	1.45	1.11
971-0104	625-2D	D	1.99	1.59	.97	.91

Round aluminum knobs. For use on receivers, test equipment, hi-fi systems —any electrical equipment. All have straight knurl except Type 310-20 diamond knurl. All fit ¼" shaft. Have anodized aluminum finish. With 6-32 set screws, except Type 310-20 which has 8-32 set screws. 2 oz.

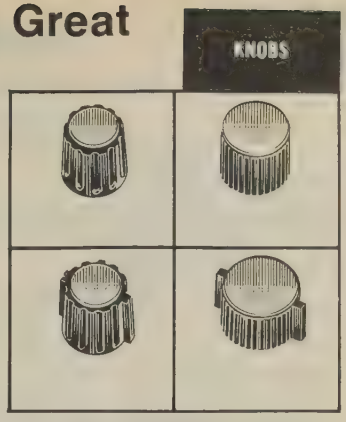
Versatile Knob Systems That Work Great, Look Great



Spruce up the front-panels of your electronic equipment with these highly versatile and attractively styled knob systems. You've never seen anything so convenient! So handy! So nice-looking . . . that works so well in practically any knob application!

Mount these knobs in any combination to any shaft without set screws. Place collet fixture over the shaft and lock in place by simply tightening a screw or nut in the head of the knob. You don't need special tools and there's no risk of damaging the knob or shaft.

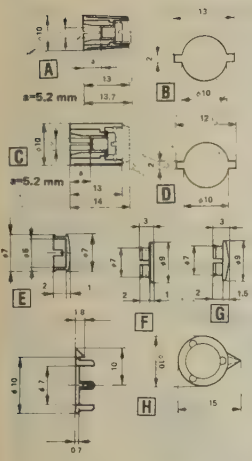
Knobs, color caps, pointers, figure dials, stators and other components of the system fit together as an integrated unit which offers you complete freedom to select exactly the right combination for virtually any application. If changes are ever necessary, just substitute any item at any time and save yourself endless hours of catalog-thumbing or source-hunting for knobs to fit the job.



COLOR CODES FOR ITEMS ON THIS PAGE
Light Gray — LG; Black — Bk; Red — Rd; Dark Red — DkRd.

10 mm KNOBS FOR ⅛" SHAFTS

*Caps for knob types 020, 022. †Caps for knob types 055, 057.



KNOBS

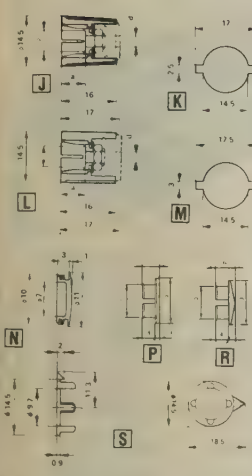
Stock No.	Mfr's Type	Fig.	Color	EACH 15-99	EACH 100-249	EACH 250-Up
656-1010	020-2210	A	LG	.75	.65	.56
656-1020	020-2220	A	Bk	.75	.65	.56
656-1030	020-2230	A	Rd	.75	.65	.56
656-1040	022-2210	B	LG	.90	.80	.68
656-1050	022-2220	B	Bk	.90	.80	.68
656-1060	022-2230	B	Rd	.90	.80	.68
656-1100	055-2220	C	Bk	.75	.65	.56
656-1110	055-2231	C	DkRd	.75	.65	.56
656-1120	057-2220	D	Bk	.90	.80	.68
656-1130	057-2231	D	DkRd	.90	.80	.68

KNOB ACCESSORIES

Stock No.	Mfr's Type	Fig.	Color		
656-1070	040-1010*	E	LG	Sold in Qty's of 150 Min. and Up	.07
656-1080	040-1020*	E	Bk		.07
656-1090	040-1030*	E	Rd		.07
656-1140	040-2120†	F	Bk		.07
656-1150	040-2131†	F	DkRd		.07
656-1160	040-2220†	G	Bk		.07
656-1170	040-2231†	G	DkRd		.07
656-1180	041-2110	H	LG		.07
656-1190	041-2120	H	Bk		.07
656-1200	041-2130	H	Rd		.07
656-1210	041-2131	H	DkRd		.07

14.5 mm KNOBS FOR ¼" SHAFTS

*Caps for knob types 020, 022. †Caps for knob types 055, 057.



KNOBS

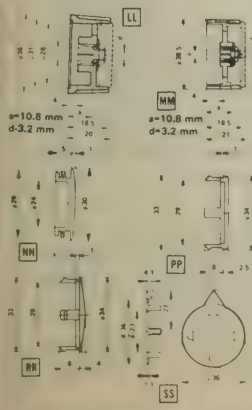
Stock No.	Mfr's Type	Fig.	Color	EACH 15-99	EACH 100-249	EACH 250-Up
656-1220	020-3510	J	LG	.85	.75	.62
656-1230	020-3520	J	Bk	.85	.75	.62
656-1240	020-3530	J	Rd	.85	.75	.62
656-1250	022-3510	K	LG	1.00	.85	.74
656-1260	022-3520	K	Bk	1.00	.85	.74
656-1270	022-3530	K	Rd	1.00	.85	.74
656-1310	055-3520	L	Bk	.85	.75	.62
656-1320	055-3531	L	DkRd	.85	.75	.62
656-1330	057-3520	M	Bk	1.00	.85	.74
656-1340	057-3531	M	DkRd	1.00	.85	.74

KNOB ACCESSORIES

Stock No.	Mfr's Type	Fig.	Color		
656-1280	040-3010*	N	LG	Sold in Qty's of 150 Min. and Up	.07
656-1290	040-3020*	N	Bk		.07
656-1300	040-3030*	N	Rd		.07
656-1350	040-3120†	P	Bk		.07
656-1360	040-3131†	P	DkRd		.07
656-1370	040-3220†	R	Bk		.07
656-1380	040-3231†	R	DkRd		.07
656-1390	041-3110	S	LG		.07
656-1400	041-3120	S	Bk		.07
656-1410	041-3130	S	Rd		.07
656-1420	041-3131	S	DkRd		.07

36 mm KNOBS FOR ¼" SHAFTS

*Caps for knob type 020. †Caps for knob type 055.



KNOBS

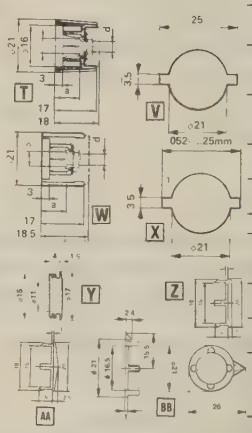
Stock No.	Mfr's Type	Fig.	Color	EACH 15-99	EACH 100-249	EACH 250-Up
656-2200	020-6510	LL	LG	1.75	1.50	1.30
656-2210	020-6520	LL	Bk	1.75	1.50	1.30
656-2220	020-6530	LL	Rd	1.75	1.50	1.30
656-2260	055-6520	MM	Bk	1.75	1.50	1.30
656-2270	055-6531	MM	DkRd	1.75	1.50	1.30

KNOB ACCESSORIES

Stock No.	Mfr's Type	Fig.	Color		
656-2230	040-6010*	NN	LG	Sold in Qty's of 150 Min. and Up	.18
656-2240	040-6020*	NN	Bk		.18
656-2250	040-6030*	NN	Rd		.18
656-2280	040-6120†	PP	Bk		.18
656-2290	040-6131†	PP	DkRd		.18
656-2300	040-6220†	RR	Bk		.18
656-2310	040-6231†	RR	DkRd		.18
656-2320	041-6110	SS	LG		.22
656-2330	041-6120	SS	Bk		.22
656-2340	041-6130	SS	Rd		.22
656-2350	041-6131	SS	DkRd		.22

21 mm KNOBS FOR ¼" SHAFTS

*Caps for knob types 020, 022. †Caps for knob types 055, 057.



KNOBS

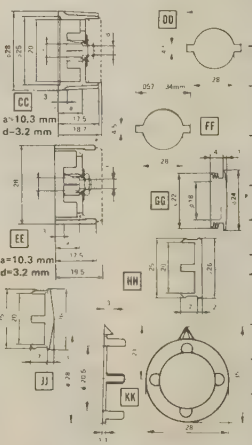
Stock No.	Mfr's Type	Fig.	Color	EACH 15-99	EACH 100-249	EACH 250-Up
656-1500	020-4510	T	LG	1.00	.85	.74
656-1510	020-4520	T	Bk	1.00	.85	.74
656-1520	020-4530	T	Rd	1.00	.85	.74
656-1530	022-4510	V	LG	1.10	.95	.81
656-1540	022-4520	V	Bk	1.10	.95	.81
656-1550	022-4530	V	Rd	1.10	.95	.81
656-1590	055-4520	W	Bk	1.00	.85	.74
656-1600	055-4531	W	DkRd	1.00	.85	.74
656-1610	057-4520	X	Bk	1.10	.95	.81
656-1620	057-4531	X	DkRd	1.10	.95	.81

KNOB ACCESSORIES

Stock No.	Mfr's Type	Fig.	Color		
656-1560	040-4010*	Y	LG	Sold in Qty's of 150 Min. and Up	.08
656-1570	040-4020*	Y	Bk		.08
656-1580	040-4030*	Y	Rd		.08
656-1630	040-4120†	Z	Bk		.08
656-1640	040-4131†	Z	DkRd		.08
656-1650	040-4220†	AA	Bk		.08
656-1660	040-4231†	AA	DkRd		.08
656-1670	041-4110	BB	LG		.13
656-1680	041-4120	BB	Bk		.13
656-1690	041-4130	BB	Rd		.13
656-1700	041-4131	BB	DkRd		.13

28 mm KNOB FOR ¼" SHAFT

*Caps for knob types 020, 022. †Caps for knob types 055, 057.

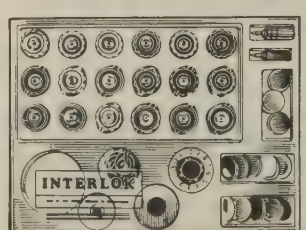


KNOBS

Stock No.	Mfr's Type	Fig.	Color	EACH 15-99	EACH 100-249	EACH 250-Up
656-1800	020-5510	CC	LG	1.40	1.20	1.05
656-1810	020-5520	CC	Bk	1.40	1.20	1.05
656-1820	020-5530	CC	Rd	1.40	1.20	1.05
656-1830	022-5510	DD	LG	1.50	1.30	1.12
656-1840	022-5520	DD	Bk	1.50	1.30	1.12
656-1850	022-5530	DD	Rd	1.50	1.30	1.12
656-1890	055-5520	EE	Bk	1.40	1.20	1.05
656-1900	055-5531	EE	DkRd	1.40	1.20	1.05
656-1910	057-5520	FF	Bk	1.50	1.30	1.12
656-1920	057-5531	FF	DkRd	1.50	1.30	1.12

KNOB ACCESSORIES

Stock No.	Mfr's Type	Fig.	Color		
656-1860	040-5010*	GG	LG	Sold in Qty's of 150 Min. and Up	.12
656-1870	040-5020*	GG	Bk		.12
656-1880	040-5030*	GG	Rd		.12
656-1930	040-5120†	HH	Bk		.12
656-1940	040-5131†	HH	DkRd		.12
656-1950	040-5220†	JJ	Bk		.12
656-1960	040-5231†	JJ	DkRd		.12
656-1970	041-5110	KK	LG		.17
656-1980	041-5120	KK	Bk		.17
656-1990	041-5130	KK	Rd		.17
656-2000	041-5131	KK	DkRd		.17



KNOB DESIGNER KITS OFFER A WEALTH OF IDEAS FOR THE DESIGNER

Here's a great idea for the packaging designer! These five designer kits give you a complete selection of knobs and accessories for practically any design application you may encounter. Suddenly, you've never had it so easy and your front-panels so good! Just think of it! You no longer have to spend hours going through catalogs trying to find just the right size knob for your application. With these designer kits all you do is pick the right size knob and create your own custom knob from the many different figure dials, pointers, skirts, caps and stators in the kits. Picking the right combination of components is a pleasure, no longer an engineering chore. Each kit is easily identified and contains all the items you need to work out any design problem. There are blank figure dials too that can be custom marked to your exacting requirements! You can actually use the knobs in the design of your prototype model and see exactly what it will look like when finished! All kits are stocked in-depth, so order any quantity you need any time.

Stock No.	Mfr's Type	Kit Description	EACH
656-7000	070-1000	10 mm knobs for ⅛" shafts	24.97
656-7010	070-1450	14.5 mm knobs for ¼" shafts	24.97
656-7020	070-2100	21 mm knobs for ¼" shafts	24.97
656-7030	070-2800	28 mm knobs for ¼" shafts	28.30
656-7040	070-3600	36 mm knobs for ¼" shafts	24.97

17

Precision Industrial Soldering Equipment

MINI-INDEX OF TOOLS IN THIS CATALOG

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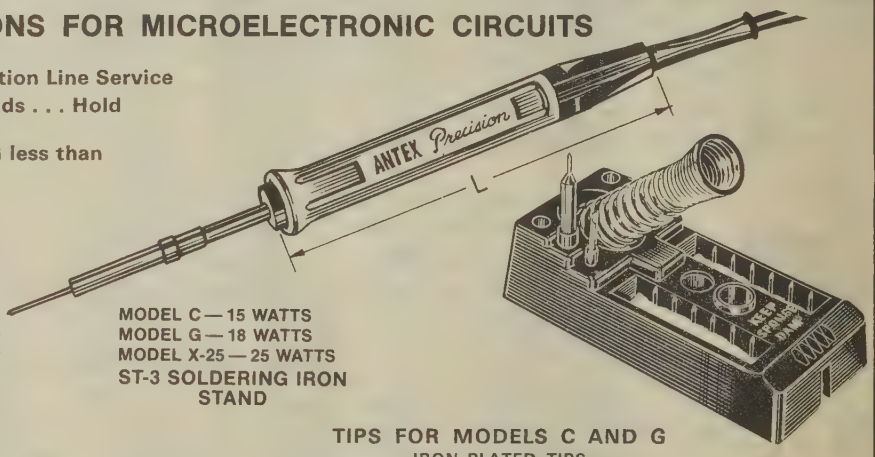
SOLDERING IRONS FOR MICROELECTRONIC CIRCUITS

- **Long-lasting Elements—Designed for Production Line Service**
- **Heat to Full Operating Temperature in Seconds . . . Hold Constant Tip Temperature**
- **Low Current Leakage . . . for Models C and G less than 10 μA . . . for Model X25 less than 20 μA**
- **Safe for Delicate Components**
- **Maximum Heat Transfer Efficiency with Slide-on Replaceable Tips**
- **All Models Meet OSHA Standards for Safety**



MODEL C — 15 WATTS
MODEL G — 18 WATTS
MODEL X-25 — 25 WATTS
ST-3 SOLDERING IRON STAND

Soldering irons ruggedly built for long-lasting, heavy-duty service and production line use. Fast heat-up and recovery time, efficient heat transfer assure steady tip temperature and superior performance in all microelectronic soldering applications. Low current leakage and near-infinite insulation of heating elements from tip eliminate risk of damage to transistors, integrated circuits and other delicate components, and assure safety of the operator. Interchangeable tips in a variety of sizes and shapes cover a full range of soldering requirements. No set screws to freeze and break.

Three models, three power ranges: 15 watts, 18 watts, 25 watts; all feature comfortable handles of highest quality, char-proof, unfilled Melamine plastic. Cords are ultra-flexible for easy handling. For 110–130 V, 50–60 Hz AC.

SOLDERING IRONS

*Temperature depends on voltage. All models have 3-prong plug.

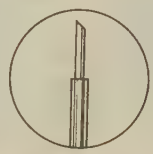
Stock No.	Mfr's Type	L. In.	Wt. Oz.	Power Watts	°F Temp. Range	EACH 1-9	EACH 10-Up
728R0220	C-3	6½	3	15	650-750	14.37	11.50
728R0320	G-3	6½	3	18	650-700*	10.44	8.88
728R0520	X25-3	8¾	4 ¼	25	650-700	12.02	10.22

REPLACEMENT ELEMENTS

728R0200 For Model C ..... Each **7.75**
728R0300 For Model G ..... Each **7.95**
728-0500 For Model X25-3 ..... Each **9.00**

SOLDERING IRON STAND

ST-3. Holds irons and solder spool. 8¼" high.
728R0400 Wt. 2 lbs. ..... Each **8.50**


A SPADE

B CHISEL

C NEEDLE

TIPS FOR MODELS C AND G

IRON-PLATED TIPS

Size In.	Stock No.	Fig.	Type	Stock No.	Fig.	Type	EACH 1-24	EACH 25-Up
3/64	728R1602	A	Spade 6-IS	728R1600	B	Chisel 6-IC	2.23	1.78
1/16	728R4605	A	Spade 46-IS	728R4600	B	Chisel 46-IC	2.23	1.78
3/32	728R1202	A	Spade 2-IS	728R1200	B	Chisel 2-IC	2.23	1.78
1/8	728R8605	A	Spade 86-IS	728R8600	B	Chisel 86-IC	2.23	1.78
5/32	728-1302	A	Spade 3-IS	728-1300	B	Chisel 3-IC	2.23	1.78
3/16	728-1801	..	.....	728-1400	B	Chisel 4-IC	2.23	1.78
.012	728-1801	C	Needle 8X*	.....	..	.....	2.03	1.62

*Available in gold or bare copper only.

NICKEL-PLATED TIPS

Size In.	Stock No.	Fig.	Type	Stock No.	Fig.	Type	EACH 1-24	EACH 25-Up
3/64	728R1606	A	Spade 6-NS	728-1604	B	Chisel 6-NC	1.53	1.22
1/16	728R4615	A	Spade 46-NS	728R4610	B	Chisel 46-NC	1.53	1.22
5/64	728-5605	A	Spade 56-NS	728-5600	B	Chisel 56-NC	1.53	1.22
3/32	728R1208	A	Spade 2-NS	728-1204	B	Chisel 2-NC	1.53	1.22
1/8	728-8615	A	Spade 86-NS	728-8610	B	Chisel 86-NC	1.53	1.22
3/16	728-1404	A	Spade 4-NS	728-1304	B	Chisel 4-NC	1.53	1.22
3/32	728-1206	..	Pyramid 2-NP	728-1402	B	Chisel 4-NC	1.53	1.22

TIPS FOR MODEL X25

Stock No.	Mfrs Type	Size In.	Fig.	Tip Temp. (X50TC)*	EACH 1-24	EACH 25-Up
728-1100	50	3/32	A	608°F	2.68	2.14
728-1151	52	3/16	A	.....	2.68	2.14

ALLIED ELECTRONICS HAS COMPLETE STOCKS OF SOLDERING EQUIPMENT FOR PRODUCTION LINE USE...., FOR FAST DELIVERY OF YOUR NEEDS, CONTACT ALLIED.

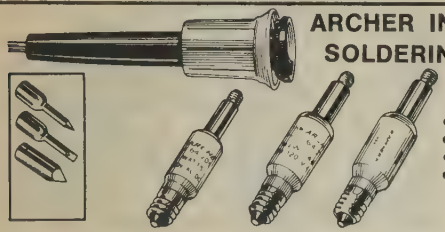
Soldering Irons and Accessories

"MARKSMAN" SOLDERING IRON

MODEL SP-23 FEATHERWEIGHT 25-WATT PENCIL IRON. Features long-reach stainless steel barrel. Thin, nickel-plated removable tip. Excellent for detailed work. Develops 750°F. For 115 VAC. Shpg. wt. 8 oz.
984-2423 ..... **Each 6.88**

TIPS FOR SP23
984-2425. Type MT1 ..... **Each 1.50**
984-2427. Type MT3 ..... **Each 1.50**

ARCHER INTERCHANGEABLE SOLDERING COMPONENTS



HANDLE, HEATING UNITS AND SCREW-ON TIPS

- **"Cool-Grip" Handle**
- **3 Different Heating Elements**
- **Thread-On Copper Alloy Tips**
- **A Complete, Low-Cost Workshop**

Tips **23½-27W** **37½-44W** **47½-56½W**

Choose the soldering device that meets your needs. Archer industrial-quality interchangeable solder tools change your iron as easily as you'd change a light bulb! Select the heating unit or accessories you need for the job you're doing—or buy them all for a complete low-cost solder workshop. "Cool-grip" polypropylene handle is lightweight and easy to use. The three different long-life heating units screw into it easily—no tools required. The thread-on copper alloy tips are of the highest quality and each is specially designed for a particular job (light, medium and heavy duty—sold in packages of three only). U.L. Listed.

Stock No.	Mfr's Type	Description	Watts	EACH
910R5928	64-2080	Cool-grip Soldering Handle	.....	2.59
910R5929	64-2081	600° F to 650° F Heating Unit	23½-27	2.49
910R5930	64-2082	750° F to 800° F Heating Unit	37½-44	2.99
910R5933	64-2083	850° F to 900° F Heating Unit	47½-56½	4.39
910R5934	64-2084	Light, Medium, Heavy-Duty Tips	.....	Pkg. 3/1.89

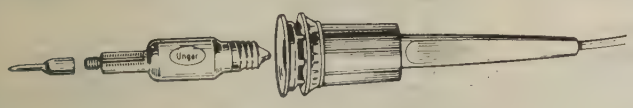
INTERCHANGEABLE HEATING UNITS

Stock No.	Mfr's Type	Description	Temperature	Watts	EACH 1-9	EACH 10-49	EACH 50-Up
972-0537	537	For ¼" thread-on tips	600-650°F	27	3.98	3.18	2.66
972-1237	1237	For ¼" thread-on tips	700-750°F	42	5.35	4.28	3.57
972-4037	4037	For ¼" thread-on tips	800-850°F	50	7.48	5.98	4.99
972-0535	535	For ⅛" thread-in tips	600-650°F	27	3.98	3.18	2.66
972-1235	1235	For ⅛" thread-in tips	700-750°F	42	5.35	4.28	3.57
972-4035	4035	For ⅛" thread-in tips	800-850°F	50	7.48	5.98	4.99
972-4045	4045	For 3/16" thread-in tips	800-850°F	50	7.48	5.98	4.99

HEATING UNITS WITH INTEGRAL TIPS

Stock No.	Mfr's Type	Description	Temperature	W.	Lgth.	EACH 1-9	EACH 10-49	EACH 50-Up
972-4033	4033	Long Taper Chisel, iron clad	850-1000°F	50	1.750"	7.48	5.98	4.99
972-4039	4039	Short Taper Chisel, iron clad	850-1000°F	50	1.188"	7.48	5.98	4.99
972-1233	1233	Long Taper Chisel, copper	750-800°F	42	1.688"	5.35	4.28	3.57

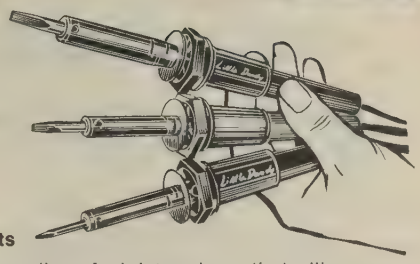
STANDARD SOLDERING IRON OUTFIT



- **Interchangeable Handle, Tips and Heater Units**
- **Lightweight and Perfectly Balanced for Fatigue-Free Use**
- **For Production Line, Servicing, and Research Lab**

Model 7070. Versatile modular soldering iron includes Type 776 handle and two-wire cord. Type 1237 high-heating element (42 watts—750° to 800° F), three thread-on tips (pencil, chisel and pyramid). Comfortable polypropylene handle with cork grip. Octagon washer prevents rolling. U.L. Listed. For 115 volts. AC-DC. Shpg. wt. 1 lb.
972-7070. 1-9 ..... **Each 12.45**
10-49 ..... **Each 9.96** **50-Up** ..... **Each 8.32**

LITTLE DANDY® MINIATURE IRONS



- **Three Basic Sizes to Choose From**
- **Wattage From 20 to 50 Watts**

Here's an economy-line of miniature irons that will stand up to rugged treatment without "letdown" performance. Easy to use, fits comfortably in your hand, and gives you unbelievably long service. Use for custom jobs or production runs. No sweat for Little Dandy Irons!

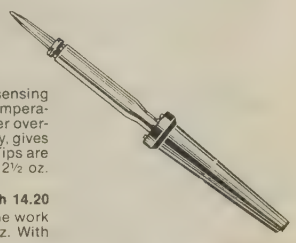
LITTLE DANDY IRONS

Stock No.	Mfr's Type	Wattage	Tip Size	EACH
709-3108	3108-20	20	1/8"	11.11
709-3110	3110-30	30	3/16"	11.19
709-3112	3112-50	50	¼"	13.53

TIPS FOR ABOVE

Stock No.	Size	Mfr's Type	Description	EACH
709-3501	1/8"	501	Chisel	3.13
709-3174	1/8"	174	Tapered Chisel	3.13
709-3507	1/8"	507	Tapered Chisel Turned Down	3.13
709-3509	1/8"	509	Round Blunt	3.13
709-3643	3/16"	643	Chisel	3.50
709-3617	3/16"	617	Tapered Chisel	3.50
709-3613	3/16"	613	Tapered Chisel Turned Down	3.50
709-3625	3/16"	625	Round Blunt	3.50
709-3704	¼"	704	Chisel	3.88
709-3715	¼"	715	Tapered Chisel	3.88
709-3709	¼"	709	Diamond	3.88
709-3740	¼"	740	Round Blunt	3.88

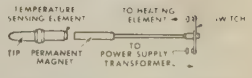
SOLDERING IRONS WITH "TEMPERATURE SENSING" TIPS



TEMPERATURE CONTROLLED IRONS

MODEL W-60 60-WATT SOLDERING IRON. Temperature-sensing device in tip automatically maintains correct soldering temperature. Does work of conventional 15 to 100-watt irons. Never overheats; saves current when idling. Reaches full heat quickly, gives rapid heat transfer. Much less tip redressing is required. Tips are easily removed and replaced by loosening tip nut. Only 2½ oz. Length, 7¼". 700°F, ¼" screwdriver tip. 120 VAC.
984R2515. Shpg. wt. 10 oz. ..... **Each 14.20**

MODEL W-100-WATT IRON. As above, 100 watts. Does the work of 75 to 150-watt irons. Length, 8¼"; weighs only 3½ oz. With 700°F, ⅜" screwdriver tip. For 120 volts, 60 Hz AC.
984-2520. Shpg. wt. 12 oz. ..... **Each 17.90**



PREMIUM-PLATED REPLACEMENT TIPS FOR ABOVE IRONS
Series CT5 is for Model W-60 iron; Series CT6 for W-100 iron.

Stock No.	Mfr's Type	Description	Temp.	EACH
984-1001	CT5A6	1/16" Screwdriver	600°F	2.25
984-1002	CT5A7	1/16" Screwdriver	700°F	2.25
984-1003	CT5A8	1/16" Screwdriver	800°F	2.25
984-1004	CT5B6	3/32" Screwdriver	600°F	2.25
984-1005	CT5B7	3/32" Screwdriver	700°F	2.25
984-1006	CT5B8	3/32" Screwdriver	800°F	2.25
984-1007	CT5C6	1/8" Screwdriver	600°F	2.25
984-1008	CT5C7	1/8" Screwdriver	700°F	2.25
984-1009	CT5C8	1/8" Screwdriver	800°F	2.25
984-1011	CT5D7	3/16" Screwdriver	700°F	2.25
984-1012	CT5D8	3/16" Screwdriver	800°F	2.25
984-1013	CT6C7	1/8" Screwdriver	700°F	3.75
984-1014	CT6C8	1/8" Screwdriver	800°F	3.75
984-1015	CT6D7	3/16" Screwdriver	700°F	3.75
984-1016	CT6D8	3/16" Screwdriver	800°F	3.75
984-1017	CT6E7	¼" Screwdriver	700°F	3.75

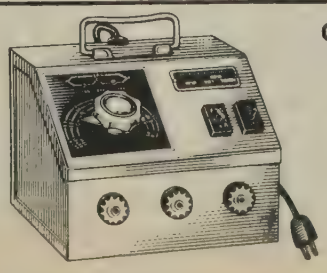
REPLACEMENT HEATING ELEMENTS

Stock No.	Type	Description	Wt.	EACH
984-1060	HE-W60	For W-60 iron	2 oz.	11.25
984-0960	HE-60	For W-TCP pencil	2 oz.	6.25

MODEL 105-A3 POWER UNIT

Provides Accurate, Variable Control for Wire-Stripping and Soldering—Isolates Tool from Line Voltage

Infinitely variable power control unit provides single power control for most thermal wire-stripping and resistance soldering applications. Accurate control of soldering tool heat. Isolates soldering tool from line voltage for safety. Designed especially for use with hand pieces at right. Adjustable 0-100 watt output, 0-3 volt output. Fuse protected. 4x5x5". 115 VAC. Shipping wt. 7½ lbs.
993-2303 ..... **Each 62.46**



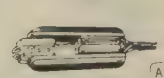
CONTROLLED-TEMPERATURE SOLDERING DEVICES

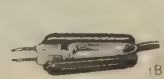
(A) **10541 TWEEZERS.** Resistance soldering. .078" electrode dia. 0-⅜" space. 5" long, 4' lead.
993-2313. Shpg. wt. 1 lb. ..... **Each 24.22**

(B) **10544 TWEEZER-TYPE WIRESTRIPPER.** Wires to 18-gauge. 15-100 W. 4½" long. Adj. stop.
993-2319. Shpg. wt. 1 lb ..... **Each 30.31**

993-2322. 10545 Element. For 10544 Wirestripper above. Shpg. wt. 1 oz. ..... **Pkg. of 2 for 1.50**

993-2310. 10519 Footswitch. For 105-A3 Power Unit, left. Shpg. wt. 12 oz. ..... **Each 14.20**





Soldering Guns, Irons and Accessories

SOLDERING IRONS FOR INDUSTRY

Rugged and dependable. Special iron-plated tips, available for all models, greatly reduce pitting. Casing and body are of one-piece seamless steel. Rubberoid-coated "stay cool" handles. 6-foot cords. Models from light to heavy-duty. U.L. listed.

MODEL 3128—60 WATTS

¼" copper tip. With stand. Length, 12¼". 115 VAC-DC. 1 lb.
709-0042. 1-5.....**Each 4.63** **6-Up**.....**Each 3.70**

MODEL 3138—100 WATTS

General-purpose ⅜" dia. copper tip. Chrome-plated. Cooling baffle; stand. 12⅞" long. 110-120 volts, AC-DC. 2¼ lbs.
709-0045. 1-5.....**Each 17.87** **6-Up**.....**Each 15.19**

MODEL 3158—200 WATTS

For medium-heavy work. ⅝" copper tip. With stand. Overall length, 13⅝". 110-120 volts. AC-DC. 3 lbs.
709-0048. 1-5.....**Each 22.88** **6-Up**.....**Each 19.45**

MODEL 3178—300 WATTS

For special production-line applications. Has ⅞" copper tip. 14⅜" long. With stand. For 110-120 volts. AC-DC. 4 lbs.
709-0051. 1-5.....**Each 29.39** **6-Up**.....**Each 24.99**

COPPER-NICKEL PLATED TIPS

*Diamond; †Chisel; ‡Screwdriver. 3 oz.

"PARAGON" IRON-CLAD TIPS

Stock No. (709-)	Mfr's Type	For Iron	EACH 1-5	EACH 6-Up	Stock No. (709-)	Mfr's Type	For Iron	EACH 1-5	EACH 6-Up
0057	3728*	3114, −25, −28	1.00	.80	0024	67S†	3114 −25 −28	4.63	3.70
0058	3738*	3138	1.38	1.10	0003	43D*	3138	4.63	3.70
0056	3728S‡	3138	1.50	1.20	0018	56‡	3138	4.63	3.70
0059	3758*	3158	3.88	3.10					

"PRINCESS" MICRO LINE SOLDERING IRONS

For the special needs of micro-electronic assembly. Precision tool design permits pinpoint hand control and high-yield soldering of delicate circuitry and components in the tightest spaces. Modular versatility with interchangeable handles, heat capsules and tips.

- **Specially Made for Micro-Electronic Assembly**
- **Interchangeable Handles, Heat Capsules and Tips**

MODEL 6900 SOLDERING STATION

Ten-watt soldering iron and holder with special sponge, three copper nibs: pencil, screwdriver and spade. Tip temp., 550-650°F. 120 volts AC-DC. 10 oz.
972R6900. 1-9 .....**Each 19.38**
10-49.....**Each 16.58** **50-Up**.....**Each 13.26**

"PRINCESS" HANDLES

Stock No.	Mfr's Type	Description	EACH 1-9	EACH 10-49	EACH 50-Up
972-6903	6903	Pastel nylon handle with plastic cool-grip, 3-wire cord and plug	12.00	9.60	8.02

STAINLESS STEEL HEAT CAPSULES

Accept all ⅛" nibs and tiplets (listed at bottom of page).

Stock No.	Mfr's Type	Temperature	Watts	Reach	EACH 1-9	EACH 10-49	EACH 50-Up
972-6910	6910	•575-650°F	10	2⅜"	10.65	8.52	7.11
972-6915	6915	700-775°F	15	2⅜"	10.65	8.52	7.11
972-6918	6918	775-850°F	18	2⅜"	10.65	8.52	7.11

⅛" PRINCESS SOLDERING NIBS

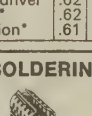
For all Princess heat capsules, and Standard Line heating units 535, 1235 and 4035. Use Adapter 100 for Standard Line heating units 537, 1237, 4037 and all 3-wire irons. *Iron-clad gold-plated copper; all others are plain copper. 3 oz.

Stock No.	Mfr's Type	Description	Size, Inches L.	Dia.	Tip	EACH 1-9	EACH 10-49	EACH 50-Up
972-6962	6962	Spade*	.62	.13	.08	1.58	1.26	1.05
972-6951	6951	Screwdriver	.60	⅛	.005	.88	.70	.58
972R6961	6961	Screwdriver*	.62	.13	.06	1.58	1.26	1.05
972-6960	6960	Pencil*	.62	.130	.015	1.58	1.26	1.05
972-6963	6963	Precision*	.61	⅛	.010	2.88	2.30	1.92

SAFETY SOLDERING IRON STANDS

GRAVITY CONTROLLED STAND

Opens and closes automatically. No need to look up from work. For all Little Dandy, other mini irons. Steel 6x2x4".

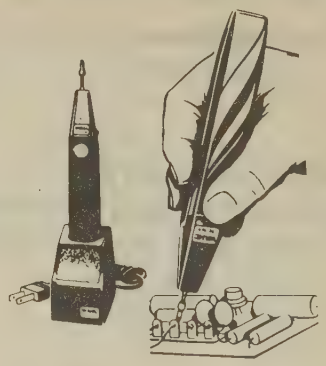


MINIATURE IRON STAND

Solder pool keeps tip from "cooking", ready for use. Accepts Little Dandy, other mini irons. For on/under bench mounting. Heavy-gauge steel.

Stock No.	Mfr's Type	Description	EACH
709-3575	575	Gravity Std.	18.70
709-3576	576	Mini Stand	8.13

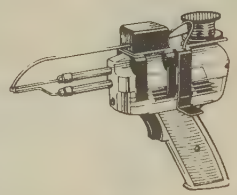
ALLIED ISO-TIP® MODEL 7570 CORDLESS SOLDERING IRON



- **A New Concept in Complete Portability—Offers Complete Working Freedom**
- **Amazingly Short Heating Time—5 Seconds**
- **Solders up to 100 Joints per Charge**
- **Recharges Automatically in Stand**
- **Equivalent to 50 Watts**

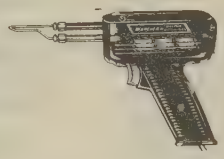
The total concept in completely portable soldering ease and performance. The Allied Iso-Tip® lets you solder in difficult-to-work places without a cord hindering your action; lets you move from place to place without plug or extension cord! Just press the button and you have soldering heat in 5 seconds. Nickel-Cadmium batteries power up to 100 joints per charge. Recharges in stand (included) overnight.
991R7570. Model 7570 "Iso-Tip" Kit.....**Each 24.95**
991R7535. Regular Replacement Tip. For most general purpose soldering tasks.....**Each 3.75**
991R7545. Fine Replacement Tip. For intricate soldering tasks including PC board work.....**Each 3.75**

"FREEHAND" SOLDER FEEDER



- **Unique Feeder Frees One Hand for Parts Handling**
- **Adjustable Feed Point • Lightweight—Only 5 Oz.**

Fits soldering guns as listed below. Natural motion of the hand feeds solder; thumb actuated trigger feeds solder in any amount. Feeder held in place by four spring steel clips, vinyl coated. Only 5 oz., including solder. Easy-to-load spools feed up to 20 feet of standard .062" flux-core solder through unit. 10 feet of .062" solder included. When positioned upside down, serves as stand for solder gun.
614-0100. SF8200. For Weller 8200 or Archer 64-2190.**Each 14.93**
614-0200. SF5500. For Weller D550 .....**Each 14.93**
614-0300. SP3020. 20 ft. Spool .062" Flux-core Solder. Pkg./3 .....**Each 4.95**

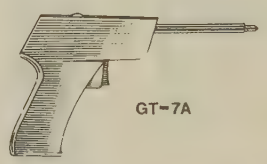


DUAL-HEAT SOLDERING GUNS

MODEL D-550PK. Outfit includes Weller D-550 heavy duty 240/325-watt soldering gun with copper soldering tip, one smoothing tip and one cutting tip; tip changing wrench, coil of solder, instructions, unbreakable plastic case. Prefocused twin spotlights. For 115 VAC. U.L. Listed. 5 lbs.
984R0551. 1-2..**Ea. 19.95 3-Up**..**Ea. 16.20**
D550. Soldering Gun Alone. Wt. 3½ lbs.
984R0550. 1-2..**Ea. 22.95 3-Up**..**Ea. 19.20**
TYPE 64-2190. 100 or 140 watts gun provides high or low heat. With copper soldering tip.
910-5935. Shpg. wt. 1 lb.....**Ea. 9.49**

ALLIED REPLACEMENT TIPS FOR ABOVE

Stk. No.	Type	For Model	Pk/2
910-5902	64-237	8200, 64-2190	.79
910-5901	64-234	D550	.79



TEMPMATIC® SOLDERING GUN

MODEL GT. Combines temperature-controlled operation with the convenience of a pistol-shaped, trigger-operated gun with small-frame pencil iron. Quick heating, patented powerhead gives control of max. temp. for damage-free soldering. Requires #7A long-life 700°F, 3/16" chisel point powerhead or #6B, 600°F, ⅛" conical powerhead (below). Powerhead ejection button. 110-120 V, 60 Hz AC.
984-3700. GT. Solder Gun Body..**Ea. 7.50**
984-0707. 7A. 700°F Powerhead..**Ea. 12.00**
984-0706. 6B. 600°F Powerhead..**Ea. 12.00**

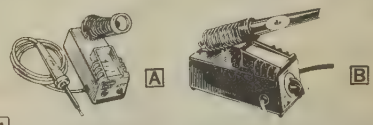
REPLACEMENT PARTS

For maintaining Weller soldering guns. *Tip nut; †switch. Av. shpg. wt. 3 oz.

Stock No.	Type	Use With Models	EACH
984-7325	7325*	D-440, S-440, 8100, 8200, 8100B	.25
984-7324	7324†	All Dual-heat type Soldering Guns	2.50

SOLDERING IRON STAND

MODEL PH60. Designed especially for Model W-60 pencil, above. Keeps iron conveniently and safely at your fingertips. Includes special sponge for cleaning tips. Shpg. wt. 2 lbs.
984-1306. 1-5.....**Each 9.00**
6-11....**Each 7.20** **12-Up**....**Each 6.01**



A 60-WATT CONTROLLED-TEMPERATURE PENCIL

MODEL W-TCP-L 60-WATT UNIT. Accurate, automatic temp. control plus low-voltage power unit (24-volts). 7½" pencil-size length; 1¾ oz. Power unit, 2x3x6". With 1/16" 700° tip; tip-cleaning sponge attached to power unit. Other tips below. Small and light weight. Packed with plenty of reserve power. High efficiency and quick recovery. On/off switch and pilot light. For 110-120 volts, 50-60 Hz. AC. 4 lbs.

Stock No.	Mfr's Type	EACH 1-5	EACH 6-11	EACH 12-Up
984-2507	W-TCPL	37.50	33.75	30.00

B 20-WATT CONTROLLED-TEMPERATURE PENCIL

MODEL W-TCP2. Similar to W-TCP-L above, but has silicon-controlled rectifier and thermistor control circuit. Adjusts temperature range continuously from 200°F to 450°F. Use only with solder that has melting point lower than 300°F. 110-130 volts, 50-60 Hz. AC. 3 lbs.
984-2510. 1-11 Each 82.50 12-23 Each 74.25 24-Up Each 66.00

PREMIUM-PLATED REPLACEMENT TIPS FOR W-TCP-L SERIES

Stock No.	Mfr's Type	Description	Temp.	EACH 1-11	EACH 12-24	EACH 25-Up
984R1506	PTA6	1/16" Screwdriver	600°F	2.25	1.80	1.50
984-1906	PTC6	⅛" Screwdriver	600°F	2.25	1.80	1.50
984-2106	PTH6	3/32" Screwdriver	600°F	2.25	1.80	1.50
984-2306	PTL6	5/64" Long Screwdriver	600°F	2.25	1.80	1.50
984-1706	PTCC6	⅛" Spade	600°F	2.25	1.80	1.50
984R1507	PTA7	1/16" Screwdriver	700°F	2.25	1.80	1.50
984-1600	PTB7	3/32" Screwdriver	700°F	2.25	1.80	1.50
984R1907	PTC7	⅛" Screwdriver	700°F	2.25	1.80	1.50
984-2010	PTD7	3/16" Screwdriver	700°F	2.25	1.80	1.50
984-2107	PTH7	3/32" Screwdriver	700°F	2.25	1.80	1.50
984-2307	PTL7	5/64" Long Screwdriver	700°F	2.25	1.80	1.50
984-2350	PTM7	⅛" Long Screwdriver	700°F	2.25	1.80	1.50
984-1500	PTAA7	1/16" Spade	700°F	2.25	1.80	1.50
984-1707	PTCC7	⅛" Spade	700°F	2.25	1.80	1.50
984-2000	PTDD7	3/16" Spade	700°F	2.25	1.80	1.50
984R2370	PTP7	3/32" Conical	700°F	2.25	1.80	1.50
984-2030	PTF7	3/32" Conical Flat	700°F	2.25	1.80	1.50
984-1508	PTA8	1/16" Screwdriver	800°F	2.25	1.80	1.50
984-1908	PTC8	⅛" Screwdriver	800°F	2.25	1.80	1.50
984-2108	PTH8	3/32" Screwdriver	800°F	2.25	1.80	1.50
984-2308	PTL8	5/64" Long Screwdriver	800°F	2.25	1.80	1.50
984-1708	PTCC8	⅛" Spade	800°F	2.25	1.80	1.50

Allied® Solder and Soldering Accessories

ALLIED'S FINEST RESIN CORE SOLDER

For fast soldering. Features the most active resin flux on the market. Meets all applicable MIL and Federal standards. Flux fungus and oxidation resistant. Used with all Allied soldering products: Allied Electric Soldering Iron, Soldering Gun, LP Gas Torch, Gas Blow Torch, Soldering Copper.

ALLIED RESIN CORE SOLDER

Stock No.	Spool Size	Tin/Lead Alloy	Core	Diam.	EACH 1-10	EACH 11-24	EACH 25-Up
833R5110	1#Spools	60/40	#66	.062"	8.53	6.82	5.69
833R5120	5#Spools	60/40	#66	.062"	28.22	24.00	22.40
833R5100	1#Spools	60/40	#66	.050"	9.03	7.22	6.03
833R5090	1#Spools	60/40	#66	.040"	9.35	7.48	6.25
833R5070	1#Spools	60/40	#66	.031"	9.40	7.52	6.28
833R5080	5#Spools	60/40	#66	.031"	29.81	25.35	23.74
833R5060	1#Spools	60/40	#66	.025"	9.78	7.82	6.53
833R5050	1#Spools	60/40	#66	.015"	14.18	11.34	9.47
833R5040	1#Spools	40/60	#66	.062"	6.20	4.96	4.14
833R5140	1#Spools	63/37	#66	.062"	8.80	7.04	5.88
833R5130	1#Spools	63/37	#66	.031"	9.80	7.84	6.55

ALLIED SOLID WIRE SOLDER

Solid wire for use with external flux is the equal in quality and purity of flux-core solders. Always uniform in diam. and quality.

Stock No.	Solid Wire	Alloy (Tin/Lead)	Diam.	EACH 1-10	EACH 11-24	EACH 25-Up
833-5160	1#Spools	63/37	.062"	8.80	7.04	5.88
833-5150	1#Spools	60/40	.062"	8.43	6.74	5.63

ALLIED BAR SOLDER

Available in all the tin lead alloys, including those for body work. Uniform distribution of tin-lead alloys in the bar.

Stock No.	Bar Solder	Alloy (Tin/Lead)	EACH 1-10	EACH 11-24	EACH 25-Up
833-5000	1#Bars	60/40	7.70	6.16	5.14
833-5010	1#Bars	63/37	8.08	6.46	5.39

SOLDER REMOVER

Remove solder from printed circuit board connections quickly, cleanly. Desoldering takes only seconds — heat does not build up in components and circuitry. Leaves only a non-conductive resin residue so that resoldering is possible without cleaning. This dry wicking method eliminates flux spatter and leaves less residue than wet wicking or sucking methods.

Stock No.	Mfr Type	Width	EACH 1-9	EACH 10-24	EACH 25-100	EACH 100-up
709-4841	484-1	.025	1.90	1.52	1.27	1.08
709R4842	484-2	.040	1.90	1.52	1.27	1.08
709R4843	484-3	.015	1.90	1.52	1.27	1.08
709-4844	484-4	.095	2.20	1.76	1.47	1.25

SOLDERING FLUXES

All metals except aluminum. Stable under extreme conditions.

Flux Formula No. 1544. Highly activated resin flux, non-corrosive and electrically non-conductive.
833-1300. 1 pint. 2 lbs.....**Each 5.48**

Flux Formula No. 1587. Resin-type foaming flux. Non-corrosive, electrically non-conductive.
833-1400. 1 pint. 2 lbs.....**Each 5.48**

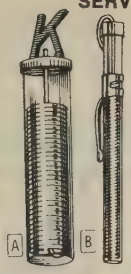
Flux Formula No. 5235 Remover. For easy removal of resin residue.
833-1415. 1 pint. 2 lbs.....**Each 5.48**
833-1420. 1 quart. 4 lbs.....**Each 7.83**

DESOLDERING VACU-BULB

- **Teflon Tip!**
- **Safe & Fast!**

This de-soldering vacu-bulb picks up solder easily, with a Teflon tip. Leaves work area spotless, is safe and fast! A must on any work-bench!!
910-5806. .....**Each 2.65**

SERVI-TUBE SOLDER DISPENSERS



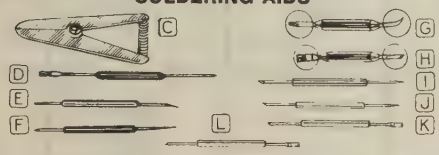
A KWIK-DRAW

Handy-sized yet hefty enough for the serious handyman. The core-flux wire 14 feet in length feeds from convenience dispenser. 60 tin/40 lead alloy.
833R5020. Shpg. wt. ¼ lb.....**Each .70**

B POCKET-PAK

Handles as easily as a pen or pencil and comes with a pocket clip. Ideal for service or repair, handy size keeps it always at hand. Dispenses a convenient length of wire. No unraveling. 60 tin/40 lead solder wire.
833R5030. Shpg. wt. ¼ lb.....**Each .70**

ALLIED SOLDERING AIDS



C 9077 HEAT SINK. Protects parts from heat. Made of aluminum—solder will not stick. Self-closing; frees hands. 3 oz.
796R9077. 1-4.....**Ea. .63** **5-Up**.....**Ea. .43**

D 9088 BRUSH. Wire brush and chrome-tipped holding end. 4 oz.
796-9088 1-4.....**Ea. 2.25** **5-Up**.....**Ea. 1.80**

E 9076 ANGLE END-TOOL. 4 oz.
796-9076. 1-4.....**Ea. 1.88** **5-Up**.....**Ea. 1.50**

F 9075 STRAIGHT END-TOOL. Double ends ream, hold or pry. Chromed. 4 oz.
796-9075. 1-4.....**Ea. 1.88** **5-Up**.....**Ea. 1.50**

G 9093 SOLDERING PROBE. For printed-circuit work. 8". 3 oz.
796-9093. 1-4.....**Ea. 2.25** **5-Up**.....**Ea. 1.80**

H 9094 PC BOARD BRUSH AND SCRAPER. Stainless steel brush on one end, steel scraper on other. 8" overall length. 3 oz.
796R9094. 1-4.....**Ea. 2.25** **5-Up**.....**Ea. 1.80**

I 9096 REAMER AND SCRAPER TIP. Chrome-plated. Ends insulated. Scrape joints, ream lug holes. Wt. 4 oz.
796-9069. 1-4.....**Ea. 1.88** **5-Up**.....**Ea. 1.50**

J 9073 BRUSH AND FORKED TIP. For PC work. Forked tip for twisting or holding wires. Ends insulated. 3 oz.
796-9073. 1-4.....**Ea. 1.95** **5-Up**.....**Ea. 1.56**

K 9074 BRUSH AND SCRAPER TIP. Brush for dusting away excess solder, scraper for joints. Ends insulated. 3 oz.
796-9074. 1-4.....**Ea. 1.88** **5-Up**.....**Ea. 1.50**

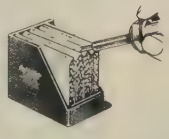
L 9086 STRAIGHT REAMER AND FORKED TIP. Steel, chrome-plated. For lug holes, forked tip holds wires. 3 oz.
796-9086. 1-4.....**Ea. 2.25** **5-Up**.....**Ea. 1.80**

ARCHER 4-PC. "SOLDER EASE" KIT

MODEL 64-2227. Special kit containing four tools for improved soldering. Aluminum heat sink protects transistors and diodes when soldering, gives a firm grip. Fine-point probe aids soldering on printed circuits. Stainless steel hardened probe, steel brush and scraper helps keep circuit clean as you solder. Also with heat sink. Shpg. wt. ½ lb.
910-5937 .....**Each 2.79**

ONE-PASS TIP CLEANER

- **Handiest Way to Clean Tips**
- **Eliminates Cleaning Problems**



One pass between wet cellulose sponges cleans entire tip. Eliminates the former cleaning problems of tip-plate damage, linting, stray solder pellets. Water-well (¾" deep) keeps sponges wet and ready to use all day. The high impact styrene holder has a non-slip, rubberized base, bored for bench mounting. Ideal for workroom, classroom, and hobbyist.

Stock No.	Mfr's. Type	Description	Size	Wt.	Price EACH
709R4800	480	Complete tip cleaner	2½"x2¾" x3½"	¾ lb.	3.50
709R4801	480-S*	Replacement sponge for tip cleaner		1 oz.	1.75

*For complete set of sponges, order "4 each"

PRINCESS DE-SOLDERING EQUIPMENT

INTEGRATED CIRCUIT EXTRACTORS

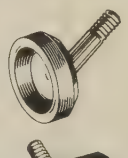
Type 6982 Dual In-Line IC Extractor. Pushbutton extractor, for use with Type 6948 tip. 8 oz.

Type 6983 Princess TO-5 Extractor. Easy to use. 8 oz.

Stock No.	Mfr's Type	EACH For	1-9	10-49	50-Up
972R6982	6982	DIP	4.23	3.38	2.82
972-6983	6983	TO-5	4.88	3.90	3.26

DE-SOLDERING TIPS

Use with all Princess heat capsules, htg. units 535, 1235, 4035. Add #100 adapter for htg. units 537, 1237, 4037 and 125, 135, 145 irons.



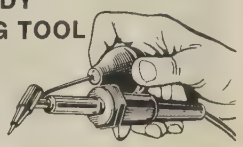
Type 6943. For 8, 10 or 12-lead IC's in "TO" configuration. Tip temperature approx. 700°F at 18 watts. .600" dia.

Type 6945. For transistor pads. Tip temperature approx. 700°F at 18 watts. .375" dia.

Type 6948. New slotted bar design removes solder from 16-pin dual in-line IC in one pass. Approx. 570°F at 18 watts. Ironclad, nickel-plated, pre-tinned.

Stock No.	Mfr's Type	EACH 1-9	10-49	50-Up
972-6943	6943	4.70	3.76	3.14
972-6945	6945	4.70	3.76	3.14
972R6948	6948	5.25	4.20	3.51

LITTLE DANDY® DE-SOLDERING TOOL



ULTRA-LIGHT, VACUUM-TYPE

Ultra-light, vacuum-type de-soldering instrument has hollow tip surrounding connection. Melts solder, vacuums work clean. 40 watt heating element. Comes with captive 3-wire vinyl cord.

Stock No.	Mfr. Type	Description	Aperture (specify)	Wt.	EACH
709R1000	490-S3	De-soldering tool compl.	.030/.040 .050/.060	½ lb.	20.21
709-1005	495	De-soldering attachment w/tip	—	½ lb.	13.38
709-1010	496	Air bulb only	—	¼ lb.	.88
709-1015	497-30	Tip only	.030"	¼ lb. (doz.)	1.00
709-1020	497-40	Tip only	.040"	¼ lb. (doz.)	1.00
709-1025	497-50	Tip only	.050"	¼ lb. (doz.)	1.00
709-1030	497-60	Tip only	.060"	¼ bl. (doz.)	1.00

ALLIED SOLDER POTS

- **For Dip Solder Jobs**
- **Replaceable Elements**
- **Custom or Production Line Use**

SP-200: 200 watts up to 1¾ lbs. capacity. Size, 2¾ x 2⅜ x ⅞" deep. Wt. 3½ lbs. **SP-250:** 250 watts up to 2 lbs. capacity. Size: 3¾ x 2 x 1¾" deep. Wt. 3½ lbs. **Type 600:** 600 watts up to 2½ lbs. capacity. Size: 3½ x 5½ x 1½" deep. Wt. 9 lbs.

Stock No.	Mfr's Type	Watts	EACH
840-3505	SP-200	200	13.75
840-3510	SP-250	250	13.75
709-6000	600*	600	52.52

*Replacement elements not stocked.

REPLACEMENT ELEMENTS. Made of nickel-chrome wire. 4 oz.
840-3500. Type A. For SP-200.....**Each 6.00**
840-3502. Type B. For SP-250.....**Each 6.00**

Allied® Precision Tools and Sets

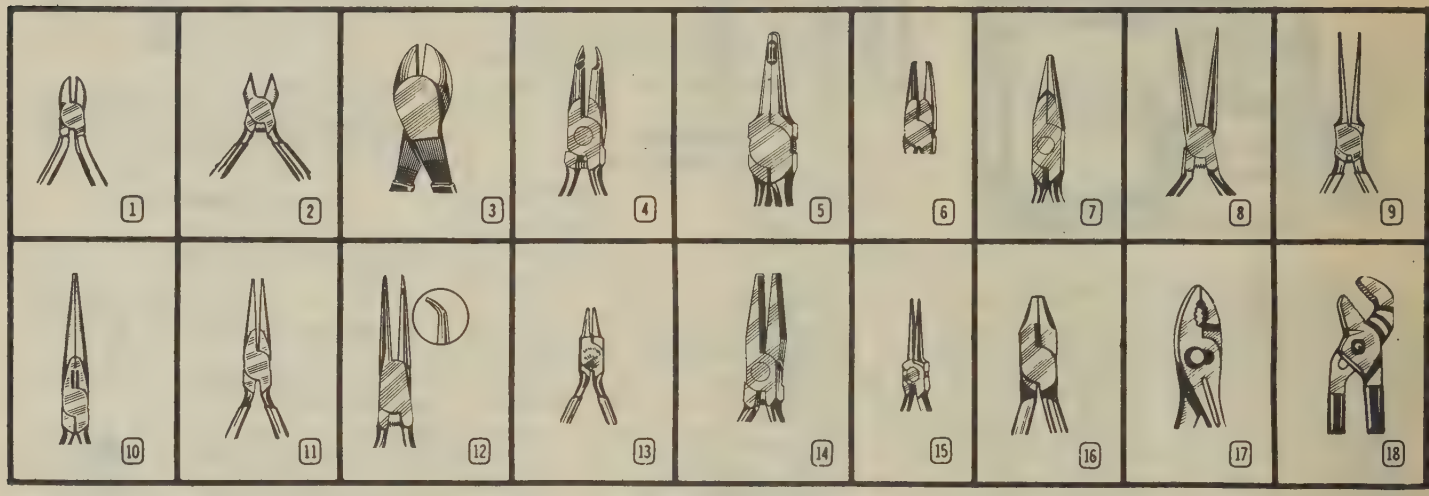
PLIERS FOR THE ELECTRONICS INDUSTRY

- Forged from Finest Tool Steel
- Bonded Vinyl Cushion Grip for Comfort, Electrical Insulation
- Heat-Treated Cutting Edges

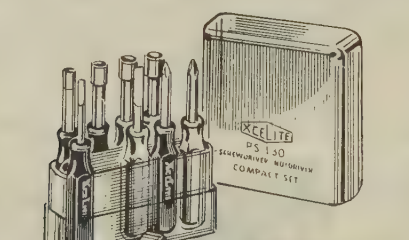
Our own quality electronics tools offer extra value! All have highly polished heads and shoulders. Accurately machined and ground for smooth action. Hammer forged from finest tool steel. Precision heat-treated cutting edges provide optimum temper, fast, easy cutting and long wear. Vinyl cushion grips isolate user from electrical shock. Bonding prevents chipping or peeling.

Comfortable, nonslip grip also resists the effects of chemicals, acid and grease. These tools carry a full one year guarantee. Manufactured in the U.S.A. to Allied's own specifications.

ALLIED® TOOLS PRECISION CRAFTED FOR THE ELECTRONICS INDUSTRY



Stock No.	Type No.	Fig.	Description	Xcelite	Crescent	Hunter	Klein	Utica	Wt. Oz.	Price Each 1-4	Price Each 5-Up
995R0206	0206	17	6" Chrome Plated Combination Plier For General Use	76CG	G26V	.....	.....	8-6C	5	4.93	3.94
995R0209	0209	17	8" Chrome Plated Combination Plier For Heavy Duty Use	78C	G28V	.....	.....	8-8C	9	6.13	4.90
995R0213	0213	17	6" Chrome Plated Combination Plier For Use In Tight Places	....	L26V	.....	.....	.....	5	4.00	3.20
995R0220	0220	18	10" Utility Pliers. Forged Rib & Lock Design & Serrated Jaws. 4 Positions. Maximum Opening 1½"	63CG	R210CV	A-31-10	D502-10	507-10C	16	12.45	9.69
995R0225	0225	1	4" Midget For Close Quarter Work	54CG	942-4CY	A97G	D527-4	46-4C	2	9.70	7.76
995R0226	0226	1	5" Plier For Most Cutting Needs	55CG	942-5CV	A96-G5	D202-5	41-5C	3	10.08	8.06
995R0228	0228	2	4" Plier For Fast, Clean Tip Cutting. Fine Tapered Nose And Near Flush Cutting Edges	74CG	942-4½SC	A86MS	.....	.....	3	13.55	10.84
995-0229	0229	2	4" Full Flush Cutting Plier That Snap Cuts To The Extreme Tip	84CG	941-4SCE	A95MS	D209-4C	47-4CSJ	6	13.40	10.72
995R0233	0233	2	5" Full Flush Cutting Diagonal Plier. Thin, Pointed Nose Is Ideal For Close Burr-Free Cutting	95CG	943-5SC	.....	D209-5C	47-5CSJ	3	13.98	11.18
995-0234	0234	7	5" Thin Chain Nose, Smooth Jaws are Slightly Beveled On Inside Edges. w/Spring	72CG	25-4½SC	A-11MS	.....	.....	3	11.28	9.02
995R0237	0237	10	6½" Long Nose Pliers With Side Cutter	51CG	654-6CV	A6-1G	D203-6	654-6C	3	10.83	8.66
995R0238	0238	16	6" Serrated Upper And Lower Jaws With Side Cutter	60CG	50-6CV	A-60C	.....	50-6C	8	10.98	8.78
995-0240	0240	16	8" Serrated Upper and Lower Jaws With Side Cutter	68CG	50-8CV	.....	.....	50-8C	16	13.18	10.54
995-0241	0241	5	6" Plier With Extreme Tip For Gripping, Sharp 5/16" Cutting Edges 3/16" Back From Tip	58CG	776-6CV	.....	D301-6P	896-6C	3	13.65	10.92
995-0243	0243	4	4½" Thin Needle Nose Plier With Cutter At Tip. Snap Cuts Fine Wires. For Printed Circuitry And Tight Quarter Work. Cuts 45° Angle At Extreme Tip	73CG	27-4½SC	A90MS	.....	.....	4	18.35	8.80
995-0247	0247	11	6½" Long Nose Pliers Without Side Cutter	52CG	1033-6CV	H8G	D301-6	1033-6C	3	8.70	6.96
995R0249	0249	15	7" Fine Needle Nose Plier	.....	777-7CV	.....	.....	.....	3	8.93	7.14
995-0250	0250	14	5" Flat Nose Pliers For Gripping And Holding. No Cutter	70CG	20-4½SCP	.....	D323-4½C	20-4½CS	3	11.38	9.10
995-0251	0251	13	4½" Rounded On Both Sides Of Nose And Precision Ground To A Fine Point	71CG	21-4½SC	A-43MS	.....	21-4½CS	3	12.48	9.98
995R0253	0253	9	6" Long, Slim Serrated Jaws Permit Entry In Areas Inaccessible To Regular Long-Nose Pliers	56CG	666-6CV	.....	.....	777-6C	3	10.27	8.22
995R0256	0256	8	5½" With Fine Serrated Jaws For Firm Gripping And Looping Of Wire. With Spring	57CG	665-5½SC	A5MS	D328-5½	775-CFS	3	12.28	9.82
995-0258	0258	1	6" All Purpose Diagonal Cutting Plier	66CG	.....	A96G-6	D202-6	41-6C	5	11.19	8.94
995-0259	0259	7	4" Midget Pliers, Serrated Jaws. Without Side Cutters	41CG	.....	A-11-DG	.....	22-4C	3	9.40	7.52
995-0260	0260	6	6" Transverse Cutting Plier. Cutter With Long Nose For Flush Cut Off.	62CG	.....	.....	D22-4½	262-5½C	3	12.90	10.32
995-0261	0261	12	5" Bent Thin Nose Plier With Fine Serrated Jaws. 60° Angle Thin Bent Nose For Handling Thin Wire In Close Quarters	79CG	.....	A29MS	.....	25-5CHFS	4	13.75	11.00
995-0262	0262	3	7" Diagonal Pliers For Heavy Duty Cutting	67CG	.....	A87G	D228-8	40-7C	5	11.18	8.94



HIGH TORQUE TOOL SETS

Finely crafted sets for hobbyists, professionals and do-it-yourselfers. Each set of drivers performs a multitude of jobs. Precision made, they provide that delicate touch needed for fine tuning and delicate instrumentation work. Or, you can use the high torque handle to provide power for regular jobs. **Note: Contact Allied Electronics for quantity prices.**

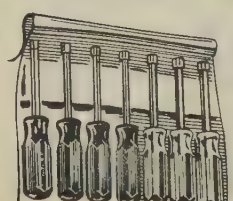
Stock No.	Mfr's Type	Description	Each
995R9901	PS88	8-pc. Screw Driver Set	9.63
995R9903	PS120	10-pc. Nut Driver Set	13.38
995R9905	PS89	10-pc. Allen Type Hex Key Set	9.63
995R9910	PS130	10-pc. Combination Set	12.75

MODEL 99PR COMBINATION KIT

Screwdrivers and Nutdrivers in Handy Kit

Work faster and more efficiently. Now you can stop using a substitute tool because the correct size isn't available. Kit contains 13 chrome-plated pieces in a convenient roll-up plastic pouch. Includes: 9 nutdrivers from 3/16" to ½" in 1/32" steps; 2 single-end screwdrivers, 3/16" and ¼" size regular screw blades; 2 single-end Number 1 and 2 Phillips screwdrivers, plus plastic handles. Wt. 2 lbs.

995R2002 .....Each 14.70



127TB HOLLOW-SHAFT NUTDRIVERS

Lightweight, hollow-shaft nutdrivers with molded, color-coded plastic handles. Nickel-chrome plated drivers. Seven popular sizes for most nut tightening and loosening jobs. Drop-forged and heat-treated for hardness. Sizes: 6, 7, 8, 9, 10, 11, & 12.

995R0201 .....Each 9.85

99MP MULTI-PURPOSE SET

Regular handle, tee handle, 10 reg. nutdrivers 3/32-½"; 9 Allen screw drivers .050-3/16"; 9 Bristol screwdrivers .048-.183", ¼, 5/16, 3/16" slotted screwdrivers; #1 Phillips; ¾-⅜" and ¼-½" reamers, awl, scriber. With canvas case. Wt. 4 lbs.

995R2000 .....Each 43.64

99SM SERVICE MASTER SET

6" long-nose, 5" diag. pliers; 6" adj. wrench. 9 reg. nutdrivers from 3/16-½"; ¼, 5/16, ⅜" stubby nutdrivers; 3/16, ¼" screwdrivers; #1 Phillips screwdriver, ¾ - ⅜" reamer; ¼-½" reamer. 8" ext. blade; reg. handle; stubby handle. Shpg. wt., 2¾ lbs.

995R2010 .....Each 26.00

Larger Quantity Price Breaks Available on Request

ALLIED ORDER BLANK

ALLIED ELECTRONICS CORPORATION

A Division of TANDY CORP.

1355 SLEEPY HOLLOW ROAD, ELGIN, ILL. 60120 – TELEX: 72-2466 PHONE: (312) 697-8200
12311 INDUSTRY ST., GARDEN GROVE, CAL. 92641 – TELEX: 68-5534 PHONE: (714) 894-7581
401 E. 8TH STREET, FORT WORTH, TEX. 76102 – TELEX: 75-8314 PHONE: (817) 336-5401
1 CENTURY CIRCLE, CAMPANELLI IND. PARK, BRAINTREE, MASS. 02184 – – – – – – – – – – – – – TELEX: 94-0650 PHONE: (617) 848-4150

Please Print Name, Address, and Phone Number

Name _____ Phone Number _____
FIRST MIDDLE INITIAL LAST

Street Address _____ Route _____ Box _____

City _____ State _____ Zip Code [ ][ ][ ][ ][ ]

Ship to Another Address? Give directions here:

ZIP

Name _____
FIRST MIDDLE INITIAL LAST

Shipping Address _____ Route _____ Box _____

City _____ State _____ Zip Code [ ][ ][ ][ ][ ]

Depend on us to ship the best way. Items with letters U, W, or Z in the Stock No. must be shipped Truck or Express. Use the line below for special instructions, if required.

_____

Date _____ 19____

If You Have Moved Since Your Last Order
print your old address here

Street Address _____

Post Office _____

State _____ Zip Code [ ][ ][ ][ ][ ]

Please do not write in this space.

DO NOT WRITE HERE	Page No. of Item	Stock Number	Quantity: Foot, Set, Pair, Roll, Pkg., Etc.	Manufacturer's Type Number	Description	Quanity Shipped	Price Each Foot, Set, Pair, Roll, Pkg., Etc.		Total Price Put Here and Add This Column		Shipping Weight LBS.	OZ.

THIS ORDER BLANK IS FOR CASH AND C.O.D. ORDERS

Enter Amount Enclosed

Note: If you send currency, be sure to register letter. (No stamps please.)

☐ **Cash Order** $.....

☐ **C.O.D.** (Minimum $50.00) A 20% deposit required No back orders on C.O.D. items. $.....

			Total LBS.	Total OZS.
AMOUNT FOR GOODS				
Handling Charge—Strike out if order is $15.00 or More	1	50		
SHIPPING CHARGES				
INSURANCE				
DUE ALLIED From Previous Cash Order				
TOTAL AMOUNT				

Please Remit for next Full Pound

SEND THIS ORDER TO YOUR NEAREST ALLIED FACILITY

Allied Electronics Business Credit Application

Business Name _____ Phone No. _____

P.O. Box or Street _____ City _____ State _____ Zip _____

☐ Branch
☐ Division
☐ Subsidiary of _____

Duns Number _____

Line of Business _____

☐ Manufacturer ☐ Corporation
☐ Wholesaler ☐ Partnership
☐ Retailer ☐ Proprietorship

Date Established _____ Former Location _____

OWNERS OR OFFICERS

Name _____ Title _____

Name _____ Title _____

Name _____ Title _____

BANK REFERENCE

Account Number _____

Name _____ Phone No. _____

P.O. Box or Street _____ City _____ State _____ Zip _____

TRADE REFERENCE

1. Name _____ Phone No. _____
   P.O. Box or Street _____ City _____ State _____ Zip _____
2. Name _____ Phone No. _____
   P.O. Box or Street _____ City _____ State _____ Zip _____
3. Name _____ Phone No. _____
   P.O. Box or Street _____ City _____ State _____ Zip _____
4. Name _____ Phone No. _____
   P.O. Box or Street _____ City _____ State _____ Zip _____

ESTIMATED MONTHLY REQUIREMENTS

_____

_____

_____

INDIVIDUALS WHO MUST APPROVE ORDERS

Name _____

Name _____

Name _____

SPECIAL BILLING INSTRUCTIONS

☐ Ship complete only.
☐ Partial shipments allowable.
☐ Summary billing required at end of each month.
☐ Do not bill on special voucher.
☐ Bill on special voucher (furnish copies).
☐ Send original and ____ copies of each invoice at time of billing

PLEASE ATTACH A CURRENT FINANCIAL STATEMENT (BALANCE SHEET AND PROFIT AND LOSS STATEMENT).

It is agreed that if a line of credit is extended to our organization, payments will be tendered in accordance with Allied Electronics Corporation selling terms of Net 10 Days. Each invoice is subject to a 1½ per cent Finance Charge if not paid within 30 days.

Signed _____ Title _____ Date _____

$50.00 MINIMUM ORDER REQUIRED FOR NEW ACCOUNTS

ALLIED ORDER BLANK

ALLIED ELECTRONICS CORPORATION

A Division of TANDY CORP.

355 SLEEPY HOLLOW ROAD, ELGIN, ILL. 60120 – TELEX: 72-2466 PHONE: (312) 697-8200
2311 INDUSTRY ST., GARDEN GROVE, CAL. 92641 – TELEX: 68-5534 PHONE: (714) 894-7581
01 E. 8TH STREET, FORT WORTH, TEX. 76102 – TELEX: 75-8314 PHONE: (817) 336-5401
CENTURY CIRCLE, CAMPANELLI IND. PARK, BRAINTREE, MASS. 02184 – – – – – – – – – – – – TELEX: 94-0650 PHONE: (617) 848-4150

Please Print Name, Address, and Phone Number

Date_____ 19____

ame _____ Phone Number_____
FIRST MIDDLE INITIAL LAST

treet
ddress_____ Route_____ Box____

City _____ State_____ Zip Code

If You Have Moved Since Your Last Order

print your old address here

Street Address_____

Post Office_____

State_____ Zip Code

Ship to Another Address? Give directions here:

ame_____
FIRST MIDDLE INITIAL LAST

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ddress_____ Route____ Box____

ity_____ State_____ Zip Code

Please do not write in this space.

Depend on us to ship the best way. Items with letters U, W, or Z in the Stock No. must be shipped Truck or Express. Use the line below for special instructions, if required.

_____

DO NOT WRITE HERE	Page No. of Item	Stock Number	Quantity: Foot, Set, Pair, Roll, Pkg., Etc.	Manufacturer's Type Number	Description	Quanity Shipped	Price Each Foot, Set, Pair, Roll, Pkg., Etc.		Total Price Put Here and Add This Column		Shipping Weight LBS.	OZ.

THIS ORDER BLANK IS FOR CASH AND C.O.D. ORDERS

Enter Amount Enclosed

Note: If you send currency, be sure to register letter. (No stamps please.)

☐ **Cash Order** $.....

☐ **C.O.D.** (Minimum $50.00) A 20% deposit required No back orders on C.O.D. items. $.....

			Total LBS.	Total OZS.
AMOUNT FOR GOODS				
Handling Charge—Strike out if order is $15.00 or More	1	50		
SHIPPING CHARGES				
INSURANCE				
DUE ALLIED From Previous Cash Order				
TOTAL AMOUNT				

Please Remit for next Full Pound

SEND THIS ORDER TO YOUR NEAREST ALLIED FACILITY

Allied Electronics Business Credit Application

Business Name _____ Phone No. _____

P.O. Box or Street _____ City _____ State _____ Zip _____

☐ Branch
☐ Division
☐ Subsidiary of _____

Duns Number _____

Line of Business _____

☐ Manufacturer ☐ Corporation
☐ Wholesaler ☐ Partnership
☐ Retailer ☐ Proprietorship

Date Established _____ Former Location _____

OWNERS OR OFFICERS

Name _____ Title _____

Name _____ Title _____

Name _____ Title _____

BANK REFERENCE

Account Number _____

Name _____ Phone No. _____

P.O. Box or Street _____ City _____ State _____ Zip _____

TRADE REFERENCE

1. Name _____ Phone No. _____
P.O. Box or Street _____ City _____ State _____ Zip _____

2. Name _____ Phone No. _____
P.O. Box or Street _____ City _____ State _____ Zip _____

3. Name _____ Phone No. _____
P.O. Box or Street _____ City _____ State _____ Zip _____

4. Name _____ Phone No. _____
P.O. Box or Street _____ City _____ State _____ Zip _____

ESTIMATED MONTHLY REQUIREMENTS

_____

_____

_____

INDIVIDUALS WHO MUST APPROVE ORDERS

Name _____

Name _____

Name _____

SPECIAL BILLING INSTRUCTIONS

☐ Ship complete only.
☐ Partial shipments allowable.
☐ Summary billing required at end of each month.
☐ Do not bill on special voucher.
☐ Bill on special voucher (furnish copies).
☐ Send original and ____ copies of each invoice at time of billing

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Signed _____ Title _____ Date _____

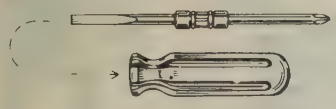
$50.00 MINIMUM ORDER REQUIRED FOR NEW ACCOUNTS

Screwdrivers and Tool Sets

Allied's own flat-bit and Phillips head screwdrivers have tough durable blades. Shockproof amberyl handles are correctly sized to match the blade. All are made of nickel-plated chrome vanadium steel which is specially treated for toughness and correct hardness. Precision points fit screws properly for the best job.

STUBBY PHILLIPS SCREWDRIVERS

Stock No.	Mfr's Type	Handle DxL	Shaft Lgth.	Point No.	Point Size	EA.
995-9828	SX102	1 1/8 x 2 1/8	1 5/16	2	1/4	1.83
995-9829	SX101	1 1/8 x 1 3/4	1 7/16	1	3/16	1.63



REVERSING SCREWDRIVER

MODEL RB1. Versatile, precision tool has 3/16" dia., regular and #1 Phillips blade.
995R9811. Shpg. wt. ½ lb. ..... Each 2.05

ALLIED HOLLOW-SHAFT NUTDRIVER

Stock No.	Mfr's Type	Shaft Size In.	Handle DxL In.	Hex Size In.	EA.
995-9832	6	3	1 1/16 x 3 1/8	3/16	1.93
995-9833	7	3	1 1/16 x 3 1/8	7/32	1.93
995-9834	8	3	1 1/16 x 3 1/8	1/4	1.93
995-9835	9	3	1 1/16 x 3 1/8	9/32	1.93
995-9836	10	3	1 1/16 x 3 1/8	5/16	1.93
995-9837	11	3	1 1/16 x 3 1/8	11/32	1.93
995-9838	12	3	1 1/16 x 3 1/8	3/8	1.93
995-9839	14	2 3/8	1 1/8 x 4 1/8	7/16	2.45
995-9840	16	2 3/8	1 1/8 x 4 1/8	1/2	2.45
995-9841	HS18	3 1/8	1 1/8 x 4 1/8	9/16	2.63
995-9842	HS20	3 1/8	1 1/8 x 4 1/2	5/8	2.63

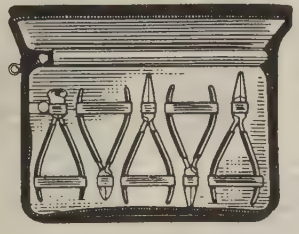
PHILLIPS SCREWDRIVERS

Stock No.	Mfr's Type	Handle DxL	Shaft Lgth.	Point No.	Point Size	EA.
995R8830	X100	5/8 x 2 3/4	2	0	1/8	1.18
995R8826	X101	7/8 x 3 1/2	3	1	3/16	1.75
995R8827	X102	1 x 3 3/8	4	2	1/4	2.15
995-8824	X103	1 1/16 x 4	6	3	5/16	3.15
995-8825	X104	1 3/16 x 4 1/2	8	4	3/8	3.95

FLAT-BIT SCREWDRIVERS

Stock No.	Mfr's Type	Handle D x L	Shaft Size D x L	EACH
995R9801	R184	5/8 x 2 3/4	1/8 x 4	1.05
995R9802	R186	5/8 x 2 3/4	1/8 x 6	1.18
995-9803	R188	5/8 x 2 3/4	1/8 x 8	1.43
995R9804	R3164	7/8 x 3 1/2	3/16 x 4	1.63
995R9805	R3166	7/8 x 3 1/2	3/16 x 6	1.83
995-9806	R3168	1 x 3 3/8	3/16 x 8	2.05
995R9807	R144	1 x 3 3/8	1/4 x 4	2.15
995R9808	R146	1 x 3 3/8	1/4 x 6	2.33
995-9809	R148	1 x 3 3/8	1/4 x 8	2.53

ALLIED 5-PIECE 4½" PLIERS SET



Set of five most-needed pliers in a handy zippered leatherette case. Drop-forged, fine-grain steel with heat-treated cutting edges. Vinyl cushion grips. Includes diagonal cutter, end-cut nipper, chain-nose pliers, flat-nose pliers, round-nose pliers. 1 1/4 lbs.

995R0257. ..... Each 35.50

DIAL-TYPE 64-1952 STRIPPER/CUTTER. Versatile spring-loaded stripper and cutter adjusts to any gauge wire from #12 to #24. Flush cutting action. Plastic cushioned grips.
910-5803 ..... Each 2.29

TYPE 64-2129 WIRE STRIPPER/CUTTER. Spring-loaded tool strips #12 to #24 wires. Handy tool has easy-grip handle. Shpg. wt. 1/2 lb.
910-5931 ..... Each 1.49

TYPE 64-2136 POCKET KNIFE. Has knife, wire scraper and screwdriver. Sharp cutting blade. Non-slip handle. Safety lock. Shpg. wt. 4 oz.
910-5932 ..... Each 1.89

TYPE 64-405 THREE-WAY CRIMPING TOOL. Crimps solderless terminals, cuts wire, strips insulation. With asstd. terminals. Wt. 1 1/2 lbs.
910-5903 ..... Each 2.29

MODEL TC-100/ST FIELD ENGINEER'S TOOL SET

Contains 57 single tools and 5 sets to meet almost any field service need.

57 single tools and 5 unique sets. Ample space in bottom of solid wood frame case (19 1/2 x 13 1/2 x 6 3/4") for test equipment, small portable electric tools, parts boxes, soldering equipment and other tools. **TOOLS AND SETS: Screwdrivers—Slotted:** (blade size in inches) 1/4 x 4, 1/4 x 6, 1/8 x 2, 1/8 x 4, 3/16 x 4, 3/16 x 6 insulated, 3/32 x 3, 5/32 x 5, 3/8 x 8, 3/16 x 1 1/4, 5/16 x 1 1/4, 5/16 x 6. **Screwdrivers — Phillips:** No. 1 Stubby, No. 0 Special Tip, No. 1 Special, No. 2 Special. **Nutdrivers (Hex):** (Hollow Shaft) 3/16", 1/4", 5/16", 11/32", 3/8" 7/16", 1/2", 5/16"; 1/4" Magnetic, 5/16" Magnetic. **Interchangeable Tools and Handles:** Regular straight handle, Ratchet straight handle, Ratchet tee handle, 1/4" square adapter, 4" extension, 7" extension, 1/4" reamer, 3/8" reamer, awl-scriber, 1/8" slotted blade, 1/4" slotted blade, 5/16" slotted blade, 3/16" slotted blade, No. 0 Phillips, No. 1 Phillips, No. 2 Phillips. **Pliers, Wrenches:** Seizer®, 6" adjustable wrench, 5" midget slip joint plier, 6" long nose plier, 7" utility plier, 4" diagonal plier, 5 1/2" needle nose plier, 8" chain nose plier, 6" diagonal plier, electronic snip, wire stripper and cutter, electrician's knife. **Screwdrivers—Allen Hex and Combinations:** Combination screw-driver/nutdriver, .028 Allen hex driver, .035 Allen hex driver.
Allen Hex Type 99 Series Set. Bristol Multiple Spline 99 Series Set. Mini Driver Set. Nutdriver Compact Set. Offset Ratchet Screwdriver Kit.
995-5000 ..... Each 275.00

TOOL SETS AND SCRIBERS

Popular Assortment of Tool Sets to Meet the Needs of Servicemen and Hobbyists

MMK-6 MASTER KIT

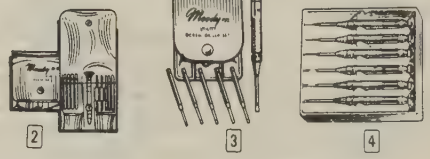
[1]

Consists of six individual Tiny Tool Sets—enclosed in separate plastic containers with chuck-type handle.

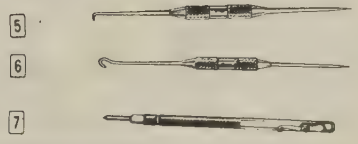
MODEL MMK-6. This kit consists of six different tool kits: SC-5, PA-5, SW-5, OE-5, TS-5, and #70. The SC-5 and PA-5 are described below under separate listings. The others are described as follows: **SW-5 kit** consists of five interchangeable steel hex wrenches with swivel-top, chuck-type handles. Sizes are 5/16", 3/32", 7/64", 1/8", 5/32". **OE-5 kit** consists of five off-set open-end steel wrenches, plus chuck-type handle and plastic case. Wrenches same size as SW-5. **TS-5 kit** consists of five steel taps in sizes 0-80, 1-72, 2-56, 3-48, 4-40. Has knurled chuck handle, torque hole for leverage. **#70 kit** contains tap sizes 3/64", #53, #50, #47, #43. Wt. ½ lb.
865R6207 ..... Each 35.00 12-Up ..... Each 31.50

[1] **SC-5 SCREWDRIVER/AWL SET.** 5 changeable blades fit universal, swivel-type handle with screw-type chuck. Blades: 4 screwdriver—.055", .070", .080", .100"; plus a 1" awl. In compact plastic container. 5 oz.
865-6212 ..... Each 2.82 12-Up ..... Each 2.26

PA-5 PHILLIPS DRIVER AND ALLEN WRENCH SET. Phillips size: #0, #1, and Allen sizes: #4, #6, and #8. With chuck type handle.
865-6210. 5 oz. ..... Each 4.32 12-Up ..... Each 3.38



[2] [3] [4]



[5] [6] [7]

[2] **TS-5 TINY TAP SET.** A specially heat-treated 6-piece set in soft plastic case. Includes five steel taps in sizes 0-80, 1-72, 2-56, 3-48, 4-40. Has knurled chuck handle, torque hole for leverage. Shpg. wt. 5 oz.
865-6218 ..... Each. 13.28 12-Up ..... Each 11.09

[3] **NO. 59 MINI TOOL SET.** Handle and interchangeable heads: one each—phillips and flat blade screwdriver heads, plus taps and awls. Economical, precision crafted set for home or hobby shop. In plastic container. Shpg. wt. ½ lb.
865-6259 ..... Each 6.70 12-Up ..... Each 5.36

#52 UTILITY SCREWDRIVER SET. Versatile, low priced set that includes a precision screwdriver with six interchangeable blades from .025" to .100". Shpg. wt. 1½ lbs.
865-6221 ..... Each 4.23 12-Up ..... Each 3.38

[4] **JS-6 JEWELER'S SCREWDRIVER SET.** Finely-crafted set includes six jeweler's drivers with precision steel blades (.025", .040", .055", .070", .080" and .1"), knurled handles, grooved chuck. Made to Federal spec. GGG-S-121. With case. 3/4 x 4 1/2 x 3 3/4". Shpg. wt. ½ lb.
865R6206 ..... Each 7.33 12-Up ..... Each 5.86

[5] **MS-2 MACHINIST SCRIBER.** Tapered hook and straight points that are heat-treated and hardened. Knurled aluminum handle for comfortable grip. Wt. 6 oz.
865R6208 ..... Each 1.53 12-Up ..... Each 1.22

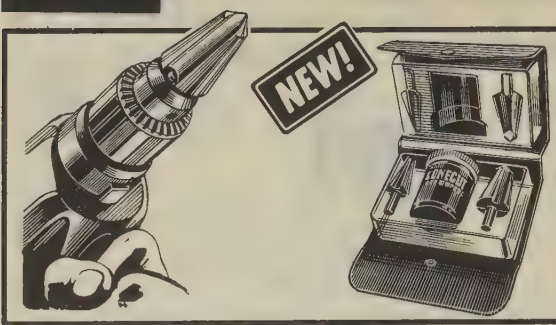
[6] **HPS-2 HOOKED-POINT SCRIBER.** Features one end that is fully hooked, one end straight. Tapered. 6 oz.
865R6204 ..... Each 1.53 12-Up ..... Each 1.22

[7] **#46 CARBIDE POCKET SCRIBER.** Features a reversible tip, lock nose, plus handy pocket clip. Wt. 6 oz.
865R6219 ..... Each 3.38 12-Up ..... Each 2.70

NIBBLING TOOL

Precision hand nibbling tool is indispensable for home or shop applications. Cuts holes, slots, openings, complex designs in metal, plastic and 8-gauge steel. Quick, easy to use. Leaves edges smooth, no deburring necessary. Wt. 1 lb.
527R5904. Type 64-822 ..... Each 10.05

Drills, Alignment Tools, Knives, Vises, Punches



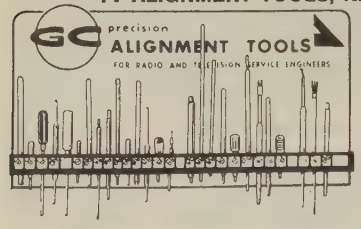
"Conecut" Sheet and Tube Drill

- **Drills a Burr-Free Hole in Seconds in Sheet or Tube**
- **Drills Perspex or Formica Without Splitting**
- **Drills Overlapping Holes**

The new "Conecut" sheet and tube drill is ideal for hand electric drills on materials up to 2 millimeters thick and can also be used on pedestal drilling machines without clamps. Two tapered drill bits allow for any size hole needed—the further the tool advances the larger the hole. Reasonable accuracy is obtained by using a washer on the tip as a simple stop; shape of the bit allows easy withdrawal from the workpiece. Bit No. 1 drills holes from ¼" to 1³⁄₁₆". No. 2 drills holes from ⅝" to 1³⁄₁₆". No. 1 and No. 2 tools and coolant are packaged in a handy plastic wallet. Ideal for sheet metalwork, maintenance, plumbing, plastics, electrical contracting, car bodywork. ventilation ducting, fibreglass, and countless other applications.

796-3420 ..... **Each 35.57**

TV ALIGNMENT TOOLS, KITS AND SERVICE AIDS



GC TYPE 9200 ALIGNMENT TOOL KIT

- **27 Most-Needed Radio-TV Alignment Tools**

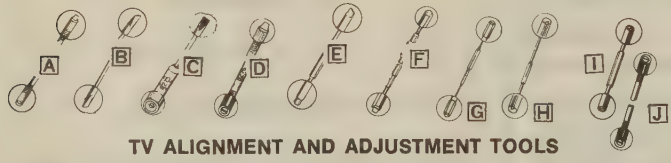
Wall mounting kit includes 27 most needed radio-TV alignment tools. Tools are housed in sturdy, 3-color steel panel with 2-hole mounting. Each tool has an individually marked slot in the panel—desired tool can be located in seconds. All tools are precision made of the finest materials including low-loss plastics and extra-hard bone fiber; tips are hardened spring steel. Kit includes: various length alignment screwdriver; special short tools; alignment wrenches; channel tuners; core aligners; oscillator adjust. tools; trimmer, IF aligners; solder probe; nylon replacement tip for long reach aligner; hex tools; other useful tools. Holding panel mounts on wall. Size of panel is 9¾" high and 18¾" wide.

796R9200. Shpg. wt. 3 lbs. ..... **Each 20.89**

TYPE 8280 TV TOOL KIT

Contains 16 most popular TV alignment tools in a handy roll-up plastic case. Kit includes: "Shorty" duplex aligner; tuning wand; core aligner; oscillator tool; long-reach aligner; ⅛" sq. socket wrench; K-Tran tool; 0.100 hex wrench; recessed screwdriver; others. Tip of Delrin, extra-hard bone fiber, or hardened spring steel.

796R8280. Shpg. wt. 8 oz. ..... **Each 11.35**



TV ALIGNMENT AND ADJUSTMENT TOOLS

Stock No.	Type	Fig.	Description	Oz.	Each 1-9	Each 10-Up
796R5009	5000	A	Alignment screwdriver	3	.90	.72
796-5004	5004	B	Delrin all-wave set aligner	3	1.00	.80
796-8275	8275	C	Zenith universal aligner	3	1.08	.86
796R8276	8276	D	Short duplex aligner	3	1.08	.86
796-8605	8605	E	Capacitor/tuner hex and screwdriver	3	1.15	.92
796-8606	8606	F	Zenith-Admiral Delrin 5" hex wrench	3	.80	.64
796-8987	8987	G	7" blade plastic screwdriver	3	1.30	1.04
796-9089	9089	H	5¾" thin-end metal-tipped aligner	3	1.08	.86
796-9296	9296	I	11" nylon .075" hex wrench	4	1.25	1.00
796-9300	9300	J	.075" hex coil slug and alignment	3	.90	.72

BLADE KNIVES

[L] **TYPE E65A KNIFE SET.** Nos. 1, 2, 5 knives plus 10 assorted extra blades.
809R1290. Shpg. wt. 12 oz. ..... **Each 7.00**

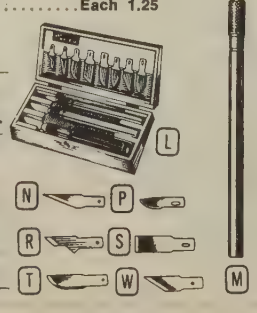
[M] **#1 KNIFE.** 5" long ,⅝" dia.
809R1275. Shpg. wt. 3 oz. ..... **Each 1.13**

#2 KNIFE. 5" long, 7⁄16" diameter.
809R1278 ..... **Each 1.25**

REPLACEMENT KNIFE BLADES

Nos. E26, E23, E25 fit ELO knife (Fig. M); Wt. 2 oz.

Fig.	No.	Description	Pkg. of 5 Stock No.	Pkg. of 5 Per Pkg.	Pkg. of 100 Stock No.	Pkg. of 100 Per Pkg.
N	E26	Fine Angle	809R1212	1.13	809R1248	15.03
P	E23	Correction	809-1215	1.25	.....	
R	E25	Etching	809-1221	1.13	809-1257	15.03
S	E24	½" Chisel	809-1224	1.13	809-1260	15.03
	E21	Deep Angle	809-1227	1.13	.....	
T	E33	Curve	809-1230	1.13	809-1266	14.02
W	E32	Deep Angle	809-1239	1.13	809-1272	15.03



QUALITY VISES FOR PROFESSIONALS AND HOBBYISTS

[A] **MODEL 364.** Utility vise that is mounted on "PowRarm" positioner—extremely useful for the professional or hobbyist. One-hand release of positioner level-bar permits rotating or tilting a workpiece; tightening freezes workpiece solidly in place. Positioner constructed of cadmium-plated steel. Handles work up to 15 lbs. Vise has smooth steel jaws. 2¼" wide, open to 2½".
988R7364. Shpg. wt. 5 lbs. ..... **Each 36.69**

[B] **MODEL 550.** Here's a ruggedly built bench vise at an economical price. Has removable steel-insert 4½" jaws with serrated faces, built-in pipe jaws and precision screw drive. Swivel base locks firmly. Sturdy anvil has forming horn. Maximum opening 4¼". Handles pipes ½" to 3" diameter.
988R7550. Shpg. wt. 19 lbs. ..... **Each 21.01**
Model 535. Above, but has 3½" jaw. Max. opening, 3". Takes pipes ½" to 3".
988R7535. Shpg. wt. 11 lbs. ..... **Each 14.51**

CHASSIS PUNCHES

[C] **TYPE 730 ROUND PUNCHES.** Cut smooth holes in sheet metal, bakelite, hard rubber, and composition. Cut through metals up to 16-gauge. Extremely easy to use, just turn cap screw with wrench to cut hole. No reaming or filing necessary. *Indicates meter cutout. 1½ lbs.

Stock No.	Hole Size Inches	Lead Size Inches	EACH 1-4	EACH 5-Up
799R3212	½	¼	6.30	5.04
799R3214	⅝	¼	9.00	7.20
799R3216	9⁄16	¼	9.00	7.20
799R3218	11⁄16	⅜	9.00	7.20
799R3220	¾	⅜	6.30	5.04
799R3222	13⁄16	⅜	6.30	5.04
799-3224	⅞	⅜	6.30	5.04
799R3226	15⁄16	⅜	7.18	5.74
799R3228	1	⅜	7.18	5.74
799-3230	1 1⁄16	⅜	7.18	5.74
799R3232	1⅛	⅜	7.18	5.74
799-3234	1 5⁄32	⅜	7.45	5.96
799-3236	1 3⁄16	⅜	7.45	5.96
799R3238	1¼	⅜	7.18	5.74
799R3240	1⅜	⅜	9.28	7.42
799R3242	1½	⅜	10.15	8.12
799-3244	1⅝	¾	12.43	9.94
799-3246	1¾	¾	14.10	11.28
799-3248	2	¾	14.84	12.39
799-3250	2¼	¾	16.66	13.04
799-3252	2½	¾	25.14	20.99
799-3254	2 5⁄32	¾	26.94	19.14

[D] **TYPE 733 "D" PUNCHES.** For cutting "D" shaped hole. 2 lbs.
799R3270. For ½" hole. ..... **Each 13.05**
799-3268. For ⅝" hole. ..... **Each 13.65**

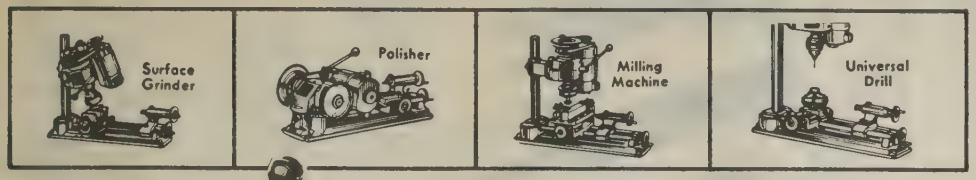
[E] **731R MINIATURE RELAY SOCKET PUNCH.** Insert punch into 9⁄16" hole and turn with wrench. Cuts metals up to 16-gauge thickness. Hole dimensions: .861x 1.018".
799-3262 ..... **Each 26.32**

[F] **TYPE 731 SQUARE PUNCHES.** Cut square hole in up to 16-gauge metal with wrench. Requires ½" hole.
799-3256. For ½" hole. ..... **Each 16.88**
799R3258. For ¾" hole. ..... **Each 17.16**
799-3260. For 1" hole ..... **Each 19.50**

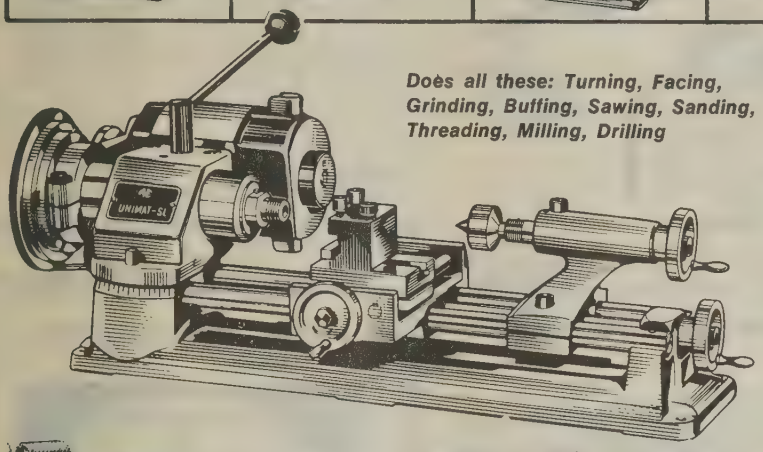
[G] **BALL-BEARING DRIVE SCREWS.**
799-3201. AV112-BB. For 1" and 1½" punches. Operate with ordinary wrench. Wt. 1 lb. ..... **Each 3.08**
799-3203. AV249-BB. Designed for use with 1 7⁄16", 1⅝". and 1¾" punches. Shpg. wt. 1 lb. ..... **Each 7.18**

Bench Lathe and Workshop Accessories

MULTI-PURPOSE 3-INCH METAL-WORKING LATHE



- **5 Precision Tools in One**
- **Headstock Rotates 360°**
- **Accurate Within .0005″**
- **11-Speed Belt Drive**
- **Ball-Bearing Spindle**



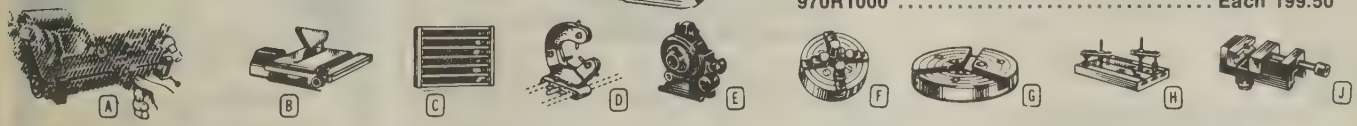
Does all these: Turning, Facing, Grinding, Buffing, Sawing, Sanding, Threading, Milling, Drilling

MODEL 1000. It's a lathe, drill press, milling machine, polisher, grinder — all in one compact, precision unit. Ideal for use in factory model shops. You can turn, face, grind, buff, saw, sand, thread, mill, drill . . . converts from one operation to another in seconds.

Headstock rotates and revolves 360°, locks at any angle, removes from bed for vertical set-ups. Has ball-bearing spindle accurate to .0005″. Ball bearing idler assembly provides 11-speed drive system, powered by self-contained 1/10-hp, 115 VAC motor. Lathe takes pieces up to 3″ diameter, 6.9″ between centers. Drill takes pieces 6¼″ high, drills to center of 6¼″ circle. Also drills into large panels, plates and chassis by rotating head over end of bed.

Size, 14½x5x5″. With wood chest and 40-page illustrated handbook. See full accessory listing below. 115 VAC. From Austria. Shpg. wt. 37 lbs.

970R1000 ..... **Each 199.50**



LATHE ACCESSORIES

A TYPE 1290 POWER FEED ATTACHMENT. Feeds carriage automatically for accurate precision finishing. 6 lbs.
970-1290 ..... **Each 49.95**

B TYPE 1240 CIRCULAR SAW ATTACHMENT. Provides straight, accurate cutting. Includes 6x8″ table, rip fence, blade guard, arbor. Order blades at right. Wt. 4 lbs.
970-1240 ..... **Each 32.95**

SLOTTING SAW BLADES FOR USE WITH TYPE 1240 CIRCULAR SAW ATTACHMENT.

Type 1241 2½″ Metal Cutting Blade. Shpg. wt. 5 oz.
970-1241 ..... **Each 10.43**

C TYPE 1040 STEADY REST. Supports 1½″ bars and tubing for machining, end drilling.
970-1040. Wt. 1 lb. ..... **Ea. 16.95**

D TYPE 2820 HIGH-SPEED ¼″ TOOL BIT SET. Set of six. For turning, facing, boring, cutting off. Shpg. wt. 8 oz.
970R2820 ..... **Each 24.95**

E TYPE 1260 INDEX HEAD. Divides, spaces for making gears, etc. Shpg. wt. 1 lb.
970-1260 ..... **Each 24.95**

F TYPE 1002 FOUR-JAW INDEPENDENT LATHE CHUCK. Takes pieces to 2¼″. With key and mounting adapter.
970-1002. Wt. 1 lb. ..... **Ea. 39.95**

TYPE 1001 THREE-JAW UNIVERSAL CHUCK. (Not illus.) Takes pieces to 2¼″
970R1001. Wt. 1 lb. .... **Ea. 37.95**

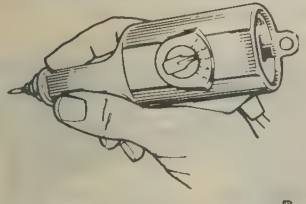
G TYPE 1261 WORK PLATE. Holds work in lathe. Capacity, 2¾″. Complete with clamps. Shpg. wt. 1 lb.
970-1261 ..... **Each 16.95**

H TYPE 1210 MILLING TABLE. Mounts on cross slide, clamps work for milling. 3x5″.
970-1210. Wt. 2 lbs. ..... **Ea. 19.95**

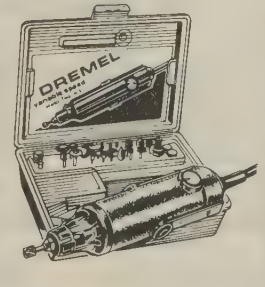
J TYPE 1010 MACHINE VISE. Fits cross slide or mill table. Has 1⅛″ V-jaws. 13 oz.
970-1010 ..... **Each 18.95**

Allied Electronics Has Top Values in Power and Hobby Tools

ELECTRIC ENGRAVER



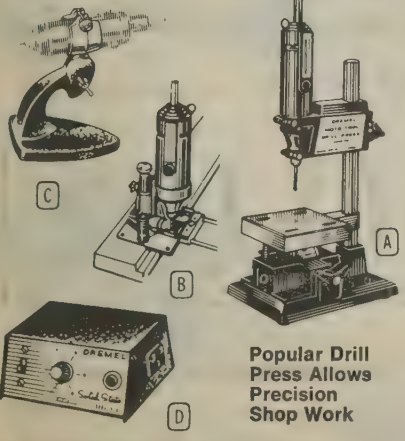
MODEL 290. Permanently marks most materials from hardened steel to glass. Calibrated 5 pos. stroke adjust, regulates length of stroke and depth of engraving. High speed reciprocating motor delivers 7200 strokes per minute. Solid carbide point. Nylon housing with hanger ring,
772R0290. Shpg. wt. 1½ lbs. ..... **Each 14.95**
NO. 9929 DIAMOND ENGRAVING POINT. For Model 290 above.
772-9929 ..... **Each 12.80**



MOTO-TOOL HOBBY/WORKSHOP SET

Model 281. Features extra rugged ball bearing and 0.9 amp motor. With 34 accessories: steel cutters, grinding wheels, polishing tips, wire and bristle brushes, sanding disc, drum sander, mandrels, dressing stone, wrench, 4 collets, case. U.L. list. 7¼x11 1/16″ 115 VAC.
772-0281. Shpg. wt. 3 lbs. ..... **Each 49.95**
772-0280. Model 280. Tool only. 2 lbs. ..... **Each 39.95**

Model 271. Similar to Model 281, above, but has 0.8 amp motor. Accessories included.
772R0271. Shpg. wt. 3 lbs. ..... **Each 39.95**
772-0270. Model 270. Tool only. 2 lbs. ..... **Each 29.95**
772R0381. Model 381. As 281 above but with adjustable speed ..... **Each 59.95**



Popular Drill Press Allows Precision Shop Work

MOTO-TOOL ACCESSORIES

A #210 DRILL PRESS. For precision drilling, routing, model making. Table can be raised or lowered; locks in any position for accurate depth adjustment. Size, 42″ high, 6¾x4″ base.
772R0210. Shpg. wt. 5 lbs. ..... **Each 19.95**

B #229 ROUTER ATTACHMENT. Allows fingertip guidance, superior visibility. Integral guide bars provide excellent depth adjustment. Can be used portably or in permanent bench-mounted position.
772-0229. Shpg. wt. 1 lb. ..... **Each 14.48**

C #223 UNIVERSAL STAND. Leaves both hands free. Ball and socket assembly can be set at any angle. Quick-action clamp. Heavy cast iron base will not tip.
772-0223. Shpg. wt. 2½ lbs. ..... **Each 16.72**

D #219 SPEED CONTROL. Solid-state circuitry. Portable. Dial right speed from 0 to full rpm. 115 VAC.
772R0219. Shpg. wt. 1½ lbs. ..... **Each 19.95**

ACCESSORY SETS

NO. 205. 12-PIECE SILICON GRINDING POINT SET. For hard steel, ceramics, glass. Vinyl fold-up pouch.
772-0205. Shpg. wt. 1 lb. ..... **Each 12.60**

NO. 206. 12-PIECE EMERY WHEEL POINT SET. With six plain shaped wheel points, ¼x¼″, ¼x3/8″, ¼x½″, 3/8x⅛″, 3/8x¼″, 3/8x3/8″ (DxT). Plus 6 assort. sizes, shapes, pouch.
772-0206. Shpg. wt. 1 lb. ..... **Each 12.60**

NO. 600. 6-PIECE ROUTER BIT SET. For precision routing, inlaying, mortising in wood, soft materials. Pouch.
772-0600. Shpg. wt. 1½ lbs. ..... **Each 22.50**

NO. 9900. 12-PIECE TUNGSTEN CARBIDE CUTTER SET. Outlasts high-speed steel many times. Max. cutting head, ⅛″. Pouch
772-9900. Shpg. wt. 1½ lbs ..... **Each 60.00**

Hand Tools and Ultrasonic Cleaners

MULTI-PURPOSE SEIZER

Holds Wires, Acts as a Heat Sink, Retrieves Parts

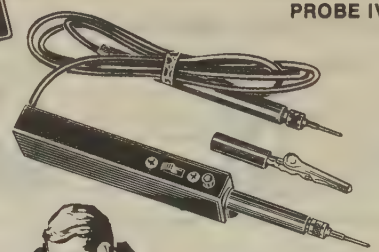
Versatile tool clamps firmly to hold wires for soldering; acts as a heat sink—retrieves small parts from hard-to-reach places. Have two-position snap lock, serrated jaws, box-joint construction. Precision machined from stainless steel.

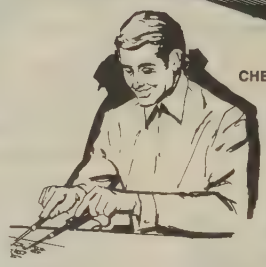
Type 42H Straight Nose. 3 oz.
995R1000 ..... Each 10.08

Type 43H Curved Nose. 3 oz.
995R1001 ..... Each 10.30

PROBE IV TESTER

NEW!





CHECKS THESE FUNCTIONS
- Continuity
- Voltage
- Polarity
- Digital Logic

Checks four functions, continuity, voltage, polarity and digital logic. Lightweight, pocket-size, and comes with a self-protective, vinyl carrying pouch. **Voltage Test Position:** Voltage to illuminate LED—full illumination 3 Volts to 600 Volts maximum; Current Drain on Test Circuit 5 Ma maximum, Input Impedance 2 Megohms. **Continuity Test Position:** Maximum Resistance Between Test Probes — minimum illumination 1000 Ohms to 350 Ohms full illumination; Current Drain on Batteries 7Ma to 50 Ma. Uses 2 AAA Cell Batteries (not supplied). Probe tips are brass, nickel plated; probe handles are molded Butyrate. Alligator clip adapter is nickel plated steel. 18 GA., test lead wire, rubber coated, 12,000 Volt, 48" long. Shpg. wt. 00 lbs.

Stock No.	Mfr's Type	EACH	
		1-11	12-Up
796-5104	5104	14.95	12.75

ULTRASONIC CLEANERS PROVIDE PENETRATING CLEANING ACTION

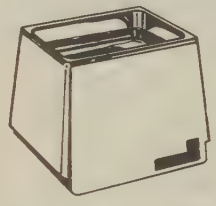
- **Makes Jewelry and Coins Sparkle Like New**
- **Clean Components and Small Instruments**
- **Stainless Steel** • **100% American Made**

Scrubs all types of intricate articles. Cleaners generate ultrasonic high-frequency waves which separate clinging dirt from surfaces without physical contact which may cause damage to delicate parts. Clean inaccessible places impossible to clean through any other method. For removing dirt, grease, and other substances from components, miniature mechanisms, and small instruments. Clean jewelry, dentures and coins. Ultrasonic principle provides quick and thorough cleaning. For continuous use at home or in production lines and labs. Completely transistorized. 80 kilohertz nominal frequency. No tuning required. For 115 volts, 50/60 Hz AC input.

NEW!

MODEL S-50

- 3-Quart Capacity Cleaner
- Simple Operation. One On/Off Switch
- No Fan or Other Moving Parts
- No Radio-Frequency Interference



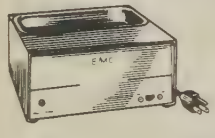
Tank size is 9"x5"x4" with a 3 quart capacity. Overall size is 12"x9"x7½" high. Has 125 watts RF input. Stainless steel tank. Has Duralac coated steel housing. Solid-state circuitry on a G-10 board. Stainless steel tank cover included. 14 lbs.
709-5050. 1-4 . Each 175.50
5-Up ..... Each 149.50

MODEL 250 CLEANER

- 1-pint Capacity
- Square Cleaning Tank

Tank is 3½x3½x2½" deep. Has 40 watts RF input. Overall size, 6 x 5 x 4½" high. 3-wire UL line cord. 2¼ lbs.
550-1250. 1-4 . Each 60.57
5-Up ..... Each 51.50

NEW MODEL 450 CLEANER

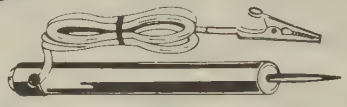


- 1-quart Capacity
- Stainless Steel Tank

Large tank, 3½" x 8" x 2½", provides room for components, jewelry, gems. 80 watts RF input. Console size, 8½x7½x4" high. Wt. 4 lbs.
550-0450. 1-4 . Each 90.93
5-Up ..... Each 77.32

CONTINUITY TESTER

NEW!



No. 54C. Simple all purpose tester for continuity testing on unpowered circuits, checking fuses, relays, etc. Uses standard pen light batteries. Alligator clip on lead wire, point on probe. Pack 1, wt. .5 lb.
809-0054 ..... Each 10.30

"MICROFLAME" HANDHELD TORCH WELDS, BRAZES, CUTS MOST METALS

- **1 Butane and 2 extra-safe "Micronox" Cylinders — Up to 30 minutes each!**
- **3 Tips: soldering, welding, brazing!**
- **Develops over 5,000° pinpoint flame!**

The "welding shop you hold in your hand" — safe and easy to use! Cylinders install quickly and thumbscrews hold them securely in place, gaskets prevent leakage. Handles so many building and repair jobs, you'll wonder how you ever did without it! Only 5¼ x 2 x 1¼".
910-2165. 64-2165 ..... 17.95
910-2166. 64-2166. Extra Butane Cylinders 2/1.49
910-2167. 64-2167. Extra Micronox Cylinders 2/1.49

METRIC CONVERSION WHEEL

- **Just Line Up Value You Wish to Convert by Lining Up Arrows—then Read Your Answer.**
- **Converts U.S. Linear, Area, Weight, Volume into Metric Equivalent.**

Simple to operate. Amazingly easy to read. With this handy new conversion calculator, simply set the value you wish to convert by lining up the arrows — then read your answer. Converts any U.S. linear, area, weight, liquid or volume into metric equivalents (or vice versa).

678-6670. 1-24 ..... Ea. 1.50
25-49....Ea. 1.25 50-Up....Ea. 1.00

DOUBLE-INSULATED DRILLS

Powerful, comfortable and double-insulated for safety. Contoured pistol grip. Ball thrust bearing construction. Three-jaw geared chuck. High torque, double reduction gear drive. Cord-strain relief. For 115 V, 25-60 Hz AC. Shpg. wt. 4 lbs.

Stock No.	Mfr's Type	Description	EACH		
			1-3	4-5	6-Up
662-1070	4100	¼" 2000 rpm	13.21	11.23	10.52
662-1074	4120	⅜" variable 0-1000 rpm	22.03	18.73	17.54
662-1089	4150	⅜" reversing, variable 0-1000 rpm	37.39	31.79	29.78

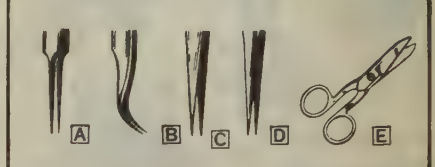
ALLIED PRECISION ASSEMBLY TWEEZERS

Our Own Fine Quality Steel Tweezers in a Variety of Precision Styles

Designed for electronics assembly of miniature and micro-fine scale. Constructed of the finest quality steel—precision workmanship assures freedom from misalignment in heavy use. Hand-ground; points are ground flat on the inside. Precision sharp and shaped points, tension spring action. In a wide variety of styles—see illustrations. In table below:

Stock No.	Fig.	Mfr's Type	Length Inches	EACH	
				1-11	12-Up
796-7948	A	7948*	4½	1.25	1.00
796-7993	A	7993	4⅛	7.43	5.94
796-7992	B	7992	5½	5.83	4.66
796-7994	C	7994	4¼	7.43	5.94
796-7995	D	7995	4½	9.25	7.40

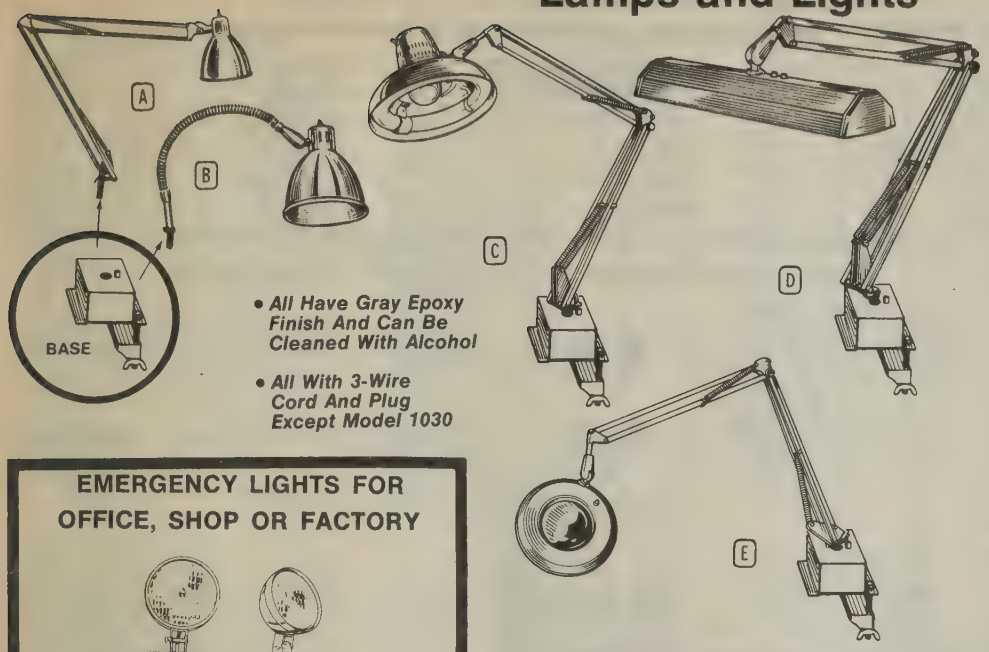
All stainless steel except *nickel plated forged steel.



E ELECTRICIAN'S SCISSORS

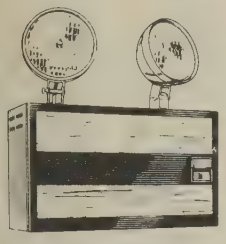
TYPE F-15. Fine quality electrician's scissors are 5" long; 1¾" cut length. Shpg. wt. 3 oz.
809-6000. 1-11 ..... Each 10.88 12-Up ..... Each 8.70

Lamps and Lights



- *All Have Gray Epoxy Finish And Can Be Cleaned With Alcohol*
- *All With 3-Wire Cord And Plug Except Model 1030*

EMERGENCY LIGHTS FOR OFFICE, SHOP OR FACTORY



DECORATOR-STYLED EMERGENCY LIGHT

MODEL 8122. Provides auxiliary emergency lighting in case of power failure. As soon as 120 VAC power goes off, light goes on. Twin 18 watt sealed beam flood lights operate for two hours, lighting a 7500 square foot area. Powered by a sealed, maintenance-free 12 volt, 8-ampere battery that never needs water or acid. Solid state battery charger and switching circuit for peak dependability. Also features an automatic cut-off to prevent the battery from draining all the way down during a power failure. On-off switch inside unit lets you turn off lights during a daytime power failure and when unit is moved. Housed in an attractive woodgrain finish case that measures 12¾" w. x 7¼" h. x 4" d.
724-8122. Shpg. wt. 30 lbs. ..... **Each 149.95**

A ALL-PURPOSE ADJUSTABLE LAMP

Model 1000. Low-cost lamp is perfect for the service bench, desk, sewing table. Raises, lowers and turns at the slightest pressure of the hand. Spring-controlled for steady positioning. Arms extend to 45". Shade is vented for rapid heat dissipation. Gray finish. Uses 75-watt incandescent bulb to give 1190 lumens. Shpg. wt. 5 lbs.
707R1000. *List 30.55* ..... **1-5 .. Each 24.08**
6-Up ..... **Each 20.48**

B EXTREMELY FLEXIBLE GOOSENECK LAMP

Model 1030. Lamp shade rotates on joint to direct light where it does the most good. Gooseneck extends over 30° circle. Perfect for assembly line or bench work. Uses 60 to 100-watt bulb. 75-watt incandescent bulb equals 1190 lumens output. On-off switch on top of vented shade. All metal; gray finish. 120 V, AC/DC. Shpg. wt. 5 lbs.
707R1030. *List 19.85* ..... **1-5 .. Each 14.76**
6-Up ..... **Each 12.55**

C FLUORESCENT/INCANDESCENT LAMP

Model 1020 C/O W/B. Combination 9" diameter reflector houses 22-watt Circline fluorescent bulb (included) and up to 75-watt incandescent lamp that provides a blend of glare-free illumination. Double-wall reflector is air cooled. Clamps on work area. True balance 45" pantograph arm directs light where desired with light touch, stays in fixed position. Each lamp has separate switch. 2140 lumens output. Gray finish. 115 volts. UL listed. Electrical outlet in base. Shpg. wt. 10 lbs.
707-1020. *List 52.95* ..... **1-5 .. Each 43.92**
6-Up ..... **Each 37.35**
707R1007. Extra FC8T9 Bulb ... **Each 6.25**

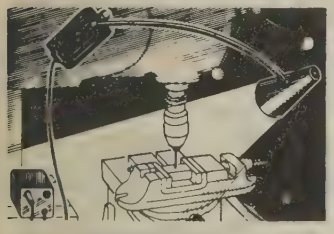
D FLUORESCENT LAMP & MAGNIFIER

Model 1015 C/O W/B. Fluorescent lamp with distortion-free 5" magnifier lens—widely used for inspection, close work and miniature component assembly. 3-diopter lens produces 2-to-1 magnification at 12". Spring-balanced twin pantographic arms with 45" reach. Swivels full 360°. Uses 22-watt Circline fluorescent tube (included) and puts out 950 lumens. Electrical outlet in base. Includes "C" mounting clamp. Gray finish. 6' cord. UL Listed. Shpg. wt. 10 lbs.
707R1015. *List 57.95* ..... **1-5 .. Each 49.10**
6-Up ..... **Each 41.00**
707R1007. Extra FC8T9 Bulb ... **Each 6.25**

E WIDE-ANGLE FLUORESCENT LAMP

Model 1005 C/O W/B. Two-tube fluorescent lamp clamps on anywhere at home, in the office, or on the drafting table. Spring balanced arms stay put. Has full 45" reach, swivels 360° to put the light where you want it. Gray finish. Two T8-15 watt fluorescent tubes are included, providing output of 1740 lumens. 6-ft. cord. Exclusive electrical outlet in base lets you plug in small appliances right at the desk. UL Listed. 120 VAC. Shpg. wt. 10 lbs.
707R1005. *List 52.95* ..... **1-5 .. Each 43.92**
6-Up ..... **Each 37.35**
707-1006. Extra T-18 Blub ..... **Each 2.50**

HI-INTENSITY MINIATURE LAMPS "AIM" THE LIGHT WHERE YOU NEED IT

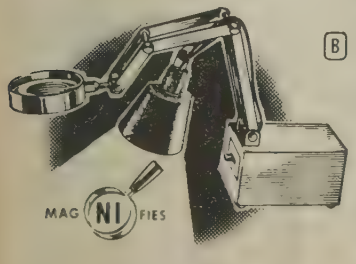


A **Magnetic Base**

A MAGNETIC BASE UTILITY LAMP

MODEL 6480. Magnetized base mounts directly on machines, etc. 12" chromed gooseneck adjusts to any position. 45 footcandles at 12". All-metal; black finish. Separate step-down transformer has on-off switch, pilot light. 5-ft. cord between lamp, transformer. With #93 bulb. For 115 VAC. Shpg. wt. 3 lbs.
564R6480 ..... **Each 35.50**

MODEL 6480M. As above, but with base plate and two mounting holes for permanent mounting on machines, etc.
564-6481. Shpg. wt. 3 lbs. ..... **Each 35.50**

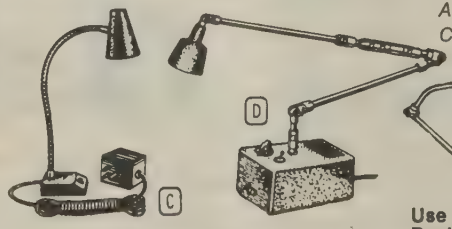


B **Lamp/Magnifier**

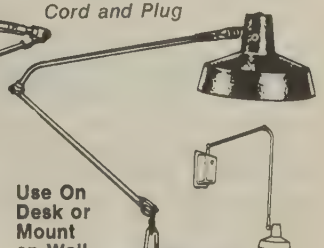
B HI-INTENSITY LAMP/MAGNIFIER

MODEL 7175. Features 2½" magnifier with 7" focal length for close detail work. Magnifier arm swivels vertically and magnifier rotates on its axis. Independent movement of lamp head and magnifier. Hi-Lo switch for 500 or 250 foot-candles. Measures 2½x2½x10" when folded. All metal; nylon feet. With one 6-volt #1133 bulb. Built-in step-down transformer. For 110-120 volts, 60 Hz AC. Lens Power: 2X.
564-7175. Shpg. wt. 3 lbs. ..... **Each 43.95**

HI-INTENSITY LAMP/4½" MAGNIFIER
MODEL 7176. As above, but with big 4½" diameter lens. Equivalent to 200 watts in high range. With one #1133 6-volt bulb. For 110-120 volts, 60 Hz AC.
564R7176. Shpg. wt. 3 lbs. ..... **Each 48.50**



All with 3-wire Cord and Plug



C MAGNETIC BASE LAMP

MODEL 6490. For factory, shop, field. 12" flexible arm twists, turns to virtually any position. Magnetic base; rear hook for hanging to non-magnetic surfaces. Illumination equals 100 W. End-of-cord transformer; #93 bulb.
564R6490. Shpg. wt. 2 lbs. ..... **Each 31.95**

MODEL 5979 SUBMINIATURE HI-INTENSITY LAMP. Three #55 6-V bulbs. 105-130 VAC.
564-5979. Shpg. wt. 2 lbs. ..... **Each 21.95**

D "PRO" HI-INTENSITY LAMP

MODEL 5900. Professional lamp offers the ultimate in intensity, color, temperature and mechanical positioning. Five intensities—up to 7000 foot-candles. Plug-in lamp arm swivels 360° vertically and horizontally. AC convenience outlet. All-metal with neutral wrinkle finish; non-scratch nylon feet. Safe, cool low voltage operation. Built-in transformer. With one #1133 bulb. 110-120 V. 60 Hz AC.
564-5900. Shpg. wt. 3 lbs. ..... **Each 79.95**

E ENGINEER'S LAMP

MODEL 7500. The most versatile lamp ever designed for office and industrial use. Has 24" long plug-in arm with a full 4¼"-diameter reflector for extra reach and wide-area illumination. Built-in Hi-Lo intensity switch. Has 110-volt AC "convenience" outlet for plugging in other electrical devices. Built-in step-down transformer for efficient 6-volt operation. With bulb. Styled in black. Shpg. wt. 8 lbs.
564-7500 ..... **Each 39.95**

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Aluminum Posts H. H. Smith ... 202
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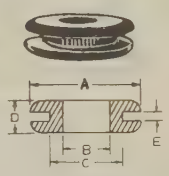
HIGH QUALITY GROMMETS

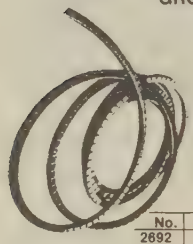
RUBBER

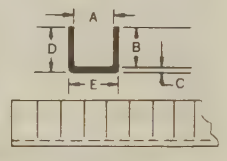
Exceptional aging qualities and high dielectric properties. Oil resistant. Dimension "C" is panel diameter; "B" is maximum cable diameter. Available in a wide variety of sizes to meet any application. **Package of 100.** Av. shpg. wt. per 100. 8 oz.



Stock No.	Mfr's Type	A In.	B In.	C In.	D In.	E In.	PER PKG. OF 100 1-9	10-24	25-Up
920R2185	2185	5/16	1/8	3/16	3/16	1/16	3.24	2.59	2.16
920R2172	2172	7/16	3/16	3/16	3/16	1/16	2.97	2.38	1.98
920R2170	2170	3/8	1/4	3/8	1/4	1/16	3.38	2.70	2.25
920R2174	2174	5/8	5/16	7/16	1/4	1/16	3.24	2.59	2.16
920R2175	2175	21/32	3/8	1/2	1/4	1/16	3.38	2.70	2.25
920R2177	2177	3/4	7/16	9/16	1/4	1/16	3.38	2.70	2.25
920R2186	2186	1 1/16	1/2	3/4	5/16	1/16	7.16	5.72	4.77
920R2187	2187	1 1/8	5/8	7/8	5/16	1/16	7.29	5.83	4.87
920-2188	2188	1 1/16	9/16	13/16	5/16	1/16	7.16	5.72	4.77
920-2189	2189	1	3/4	7/8	5/32	1/32	7.20	5.62	4.68
920-9010	91103	9/16	3/16	13/32	3/8	1/8	4.46	3.56	2.98
920-9012	91123	11/16	9/32	1/2	7/16	1/4	8.25	6.60	5.51
920-9014	91116	3/4	5/16	1/2	3/8	1/8	6.75	5.40	4.51
920-9016	91113	5/8	21/64	13/32	1/4	1/16	4.65	3.72	3.11
920-9018	91107	5/8	3/8	7/16	5/16	3/32	7.50	6.00	5.01
920-9020	91109	1 1/16	3/8	7/8	3/8	1/4	22.50	18.00	15.03
920-9022	91112	1 5/8	49/64	1 3/32	5/16	1/16	22.50	18.00	15.03

EXTRUDED "CATERPILLIAR" GROMMETS





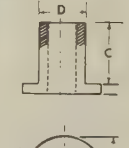
DIMENSIONS

No.	A	B	C	D	E
2692	.052	.150	.040	.190	.125
2693	.085	.155	.045	.200	.162
2694	.125	.175	.045	.220	.206

Stock No.	Mfr's Type	STD. PKG. OF 1 1-5	6-9	10-49	50-Up
920-2692	2692	13.50	10.80	9.02	7.67
920-2693	2693	15.53	12.42	10.37	8.82
920-2694	2694	16.20	12.96	10.82	9.20

Shape your own grommets to fit any size or shape opening. Made of non-conductive Black Nylon, Type 6/6, fungus resistant to conform to MIL-M-20693A, Type 1. Available in 25 Ft. rolls for panel thickness .052 to .125. **STD. PKG. 1**

NYLON SPACER BUSHINGS

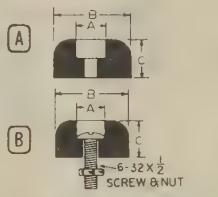


Tough spacer bushings are molded of corrosion-resistant nylon. Non-conductive; ideal for use where insulation of electronic components is essential. Meet **MIL-P-20683A** specifications. Can be used for mounting variable capacitors above the chassis, for mounting sub-panels, etc. **Sold in packages of 100 only.** Av. shpg. wt. per 100, 8 oz.

Stock No.	Mfr's Type	I.D. (A)	B In.	C In.	D In.	PRICE PER PKG./100 1-9	10-24	25-Up
920-2534	2534	#4 (.115)	.235	1/4	.147	3.11	2.48	2.07
920-2535	2535	#6 (.140)	.290	1/4	.170	3.24	2.59	2.16
920-2536	2536	#8 (.170)	.344	3/8	.205	3.38	2.70	2.25
920-2537	2537	#10 (.200)	.399	3/8	.260	3.65	2.92	2.43
920-2538	2538	1/4 (.260)	.513	3/8	.312	4.05	3.24	2.70

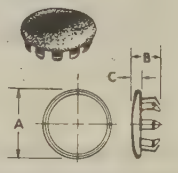
RECESS RUBBER BUMPERS

Recess rubber bumpers for military, industrial and commercial applications. Types 2195 thru 2198 (Fig. B) are supplied with 1/2" mounting screw and hex nut, for panels up to 1/4" thick. Screw has 6-32 thread except 2195, which has 8-32 thread. *With molded-in metal washer. **Package of 100.** Av. shpg. wt. per 100, 8 oz.



Stock No.	Mfr's Type	Fig.	A In.	B In.	C In.	PRICE PER PKG. OF 100 1-9	10-24	25-99	100-Up
920R2192	2192	A	7/32	17/32	1/4	2.43	1.94	1.62	1.38
920R2193	2193	A	1/4	5/8	5/16	4.05	3.24	2.71	2.30
920R2194	2194	A	9/32	3/4	3/8	4.73	3.78	3.16	2.68
920-2184	2184	A	9/32	5/8	9/32	4.73	3.78	3.16	2.68
920R2135	2135	A*	3/8	31/32	3/8	6.75	5.40	4.50	3.86
920-2195	2195	B*	3/8	31/32	3/8	13.50	10.80	9.00	7.71
920-2196	2196	B	7/32	17/32	1/2	9.45	7.56	6.31	5.37
920-2197	2197	B	1/4	5/8	5/16	10.80	8.64	7.21	6.13
920-2198	2198	B	9/32	3/4	3/8	12.15	9.72	8.12	6.90

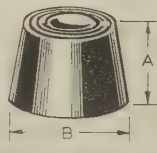
SNAP BUTTON HOLE PLUGS



Metal plugs for covering punched or drilled holes. Spring action prongs are nickel plated steel; give a firm grip. *Type 656 is vented. **Package of 100.** Av. shpg. wt. 8 oz.

Stock No.	Mfr's Type	Hole In.	A In.	B In.	C In.	PRICE PER PKG./100 1-9	10-24	25-Up
920-0650	650	1/4	13/32	15/64	1/16	3.71	2.97	2.48
920-0651	651	1/16	7/16	1/4	1/16	3.71	2.97	2.48
920-0652	652	3/16	1/2	15/64	1/16	3.71	2.97	2.48
920-0653	653	1/2	21/32	9/32	5/64	4.05	3.24	2.70
920-0654	654	5/16	13/16	15/64	5/64	5.40	4.32	3.60
920-0655	655	3/4	53/64	19/64	3/64	5.40	4.32	3.60
920-0608	608	1/8	1 1/16	15/64	1/16	6.08	4.86	4.05
920-0612	612	1	1 3/64	21/64	1/32	7.43	5.94	4.96
920-0656	656*	1	1 1/32	15/64	5/64	24.35	20.70	19.39

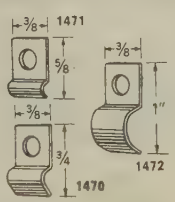
VINYL CABINET BUMPERS



All molded bumpers with brass insert to absorb screw load. Molded of Ethylene vinyl. Excellent for use on military, industrial and commercial equipment. Color: Black

Stock No.	Mfr's Type	Screw Size	A	B	PER PKG. 100 1-9	10-24	25-Up
920-9024	2181	4	3/8	9/16	8.25	6.60	5.51
920-9026	2182	6	7/16	3/4	9.75	7.80	6.51
920-9028	2183	8	5/8	15/16	13.50	10.80	9.02

CABLE CLAMP HOLDERS



Cadmium plated steel cable clamps in choice of three sizes for 1/8", 1/4" or 1/2" diameter cables. Each has a #8 mounting hole. **Sold in packages of 100 only.** Av. shpg. wt. per 100, 8 oz.

Stock No.	Mfr's Type	Cable Dia., In.	L. In.	W. In.	PRICE PER PKG./100 1-9	10-24	25-Up
920R1471	1471	1/8	5/8	3/8	1.22	.97	.81
920R1470	1470	1/4	3/4	3/8	1.28	1.03	.86
920R1472	1472	1/2	1	3/8	1.35	1.08	.90

NYLON HOLE PLUGS

NEW!

Nylon hole plug, Type 66, MIL Spec. 20693A. Maximum panel thickness .062" (1/4 and 5/16); all others, .125". All flat heads, head thickness 1/16".

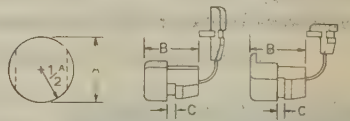
Mfr's Type	Hole Diameter	Head Diameter	Height
3089	1/4"	5/16"	5/16"
3090	5/16"	3/8"	5/16"
3091	3/8"	15/32"	13/32"
3092	1/2"	37/64"	13/32"
3093	5/8"	23/32"	13/32"
3094	3/4"	27/32"	13/32"
3095	1.000	1 1/8"	29/64"

Stock No.	Mfr's Type	PRICE PER PKG. OF 100 1-9	10-24	25-Up
920-3089	3089	6.00	4.80	4.01
920-3090	3090	6.38	5.10	4.26
920-3091	3091	6.75	5.40	4.51
920-3092	3092	7.13	5.70	4.76
920-3093	3093	8.63	6.90	5.76
920-3094	3094	11.25	9.00	7.52
920-3095	3095	15.00	12.00	10.02

NYLON STRAIN RELIEFS

NEW!

Rugged one-piece construction absorbs pull and twist. Wire full anchored and insulated at chassis entrance. Available in Straight thru or right angle styles — See diagrams below.



A = Chassis Hole **B = Length**

C = Max. Chassis Thickness

STRAIGHT THRU

RIGHT ANGLE

STRAIGHT THRU

Mfr's Type	Wire Type	Approx. Wire Size	A	B	C
937	AWM	1/8-3/16	.375"	.410"	.060"
938	SP-1, SPT-1	.12x.22	.437	.410"	.062"
939	SV, SVT, HPD	.250-.290	.500"	.438"	.100"
822	SPT-1, SPT-2, SP-2, HPN	.12-.30	.500"	.406"	.062"
823	SJ, SJT, SJO	.365-.360	.625"	.580"	.062"

RIGHT ANGLE

824	SPT-1, SPT-2, SP-2, HPN	.12-.13	.500"	.687"	.100"
825	SV, SVT, HPD	.250-.290	.500"	.687"	.100"
826	S, ST	.360-.430	.750"	1.085"	.125"

Stock No.	Mfr's Type	PRICE PER PKG. OF 100 1-9	10-24	25-Up
920-0937	937	6.00	4.80	4.01
920-0938	938	6.00	4.80	4.01
920-0939	939	6.75	5.40	4.51
920-0822	822	9.00	7.20	6.01
920-0823	823	14.25	11.40	9.52
920-0824	824	12.75	10.20	8.52
920-0825	825	12.75	10.20	8.52
920-0826	826	19.04	16.19	15.16

Allied's Hardware for the Electronics Industry

SHOULDER WASHERS

Fiber. MIL-F-1148A. Grade CH. Shoulder height, .031. *I.D. x O.D. 4 oz.

Stock No.	Mfr's Type	*Size Inches	PER PKG./100 1-9	10-Up
920-2150	2150	.140x.375	2.02	1.62
920-2153	2153	.136x.312	2.02	1.62
920-2154	2154	.250x.500	2.16	1.73
920-2155	2155	.172x.375	2.03	1.62
920-2156	2156	.196x.375	2.16	1.73
920-2157	2157	.375x.750	3.65	2.93
920-2158	2158	.385x.625	3.11	2.48

Natural Nylon. Per MIL P-20693A.

920-2660	2660	.140x.375	2.97	2.38
920-2664	2664	.250x.500	4.46	3.56
920-2666	2666	.196x.375	2.97	2.38
920-2667	2667	.375x.750	6.49	5.19
920-2668	2668	.385x.625	4.46	3.56

FLAT WASHERS

Fiber. MIL-F-1148A. Grade CH. 1/16" thick. Avg. wt. 2 oz. **Pkg. of 100.**

Stock No.	Mfr's Type	*Size Inches	PER PKG./100 1-9	10-Up
920-2160	2160	.136x.250	1.22	.97
920-2161	2161	.110x.250	1.22	.97
920-2162	2162	.140x.375	1.22	.97
920-2163	2163	.172x.375	1.35	1.08
920-2164	2164	.196x.375	1.35	1.08
920-2165	2165	.250x.500	1.35	1.08
920-2168	2168	.385x.625	1.76	1.40
920-2169	2169	.375x.750	2.57	2.05

Nylon. MIL-P-20693A. 1/16", 2514, 15: .047" Type 2517: .062". 2676: 3/32". 2 oz.

920-2671	2671	110x.250	1.62	1.30
920-2672	2672	.140x.375	1.89	1.51
920-2515	2515	.140x.312	1.62	1.30
920-2673	2673	.172x.375	1.89	1.51
920-2674	2674	196x.375	1.89	1.51
920-2517	2517	.200x.437	2.43	1.94
920-2675	2675	.250x.500	2.84	2.27
920-2676	2676	.250x.500	4.46	3.56

Steel, nickel plated. **Pkg. of 100.**

Stock No.	Mfr's Type	*Size Inches	PER PKG./100 1-9	10-Up
920R1149	1149	#4	.95	.76
920R1150	1150	#6	.95	.76
920R1151	1151	#8	.95	.76
920R1152	1152	#10	.95	.76
920-1147	1147	1/4"	.95	.76
920-1148	1148	5/16"	.95	.76

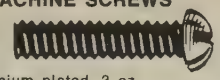
COUNTER SUNK WASHERS

Brass, nickel plated. **Pkg. of 100.** 2 oz.

Stock No.	Mfr's Type	Size Inches	PER PKG./100 1-9	10-Up
920-1115	1115	#6	2.57	2.05
920-1116	1116	#8	2.84	2.27
920R1117	1117	#10	3.38	2.70

MACHINE SCREWS

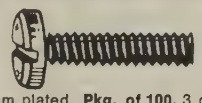
ROUND HEAD



Steel, cadmium plated. 3 oz.

Stock No.	Mfr's Type	Size Inches	PER PKG./100 1-9	10-Up
920-1173	1173	2-56x1/4	1.62	1.30
920-1174	1174	2-56x1/2	1.85	1.48
920-1175	1175	2-56x3/4	1.96	1.57
920-1177	1177	4-36x1/4	1.85	1.48
920-1183	1183	4-36x1/2	1.98	1.58
920-1350	1350	4-40x1/4	1.95	1.56
920R1352	1352	4-40x1/2	1.98	1.58
920R1354	1354	4-40x3/4	2.12	1.69
920R1000	1000	6-32x1/4	1.64	1.31
920-1001	1001	6-32x3/8	1.69	1.35
920R1002	1002	6-32x1/2	1.78	1.42
920-1355	1355	6-32x5/8	1.89	1.51
920-1356	1356	6-32x3/4	1.98	1.58
920R1357	1357	6-32x1	2.21	2.65
920-1358	1358	6-32x2	4.61	3.69
920-1006	1006	8-32x1/4	2.07	1.66
920-1007	1007	8-32x3/8	1.94	1.55
920-1008	1008	8-32x1/2	2.07	1.66
920-1010	1010	8-32x5/8	2.23	1.78
920R1359	1359	8-32x3/4	2.43	1.94
920R1360	1360	10-32x1/2	2.48	1.98
920-1361	1361	10-32x3/4	2.88	2.30
920-1362	1362	10-32x1	3.31	2.65

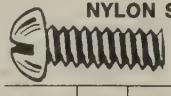
BINDING HEAD



Steel, cadmium plated. **Pkg. of 100.** 3 oz.

Stock No.	Mfr's Type	Size Inches	PER PKG./100 1-9	10-Up
920R1369	1369	2-56x1/4	1.71	1.37
920R1370	1370	2-56x1/2	1.85	1.48
920R1372	1372	4-40x1/4	1.85	1.48
920R1373	1373	4-40x1/2	1.98	1.58
920R1374	1374	4-40x3/4	2.16	1.73
920-1375	1375	6-32x3/16	1.89	1.51
920R1425	1425	6-32x1/4	1.64	1.31
920R1426	1426	6-32x3/8	1.69	1.35
920R1427	1427	6-32x1/2	1.78	1.42
920R1377	1377	6-32x3/4	1.98	1.58
920R1378	1378	8-32x5/16	2.03	1.62
920R1429	1429	8-32x3/8	1.94	1.55
920R1430	1430	8-32x1/2	2.07	1.66
920R1380	1380	10-32x1/2	2.48	1.98

NYLON SCREWS



Round Head. Natural color. 8 oz.

Stock No.	Mfr's Type	Size Inches	PER PKG./100 1-9	10-Up
920-2522	2522	4-40x1/2	6.08	4.86
920-2526	2526	6-32x5/8	6.08	4.86
920-2527	2527	6-32x3/4	6.08	4.86
920-2531	2531	8-32x1/2	6.08	4.86

BINDING HEAD. Shpg. wt. 8 oz.

920-2502	2502	4-40x1/2	6.08	4.86
920-2505	2505	6-32x1/2	6.08	4.86
920-2507	2507	6-32x3/4	6.08	4.86
920-2511	2511	8-32x1/2	6.08	4.86

STEEL HEX NUTS

Cadmium-plated, except 1196, 1199 brass—nickel plated. 4 oz.

Stock No.	Mfr's Type	Size Inches	PER PKG./100 1-9	10-Up
920R1363	1363	2-56x3/16	1.96	1.57
920-1364	1364	3-48x3/16	1.96	1.57
920R1365	1365	4-40x1/4	1.91	1.53
920R1179	1179	6-32x1/4	1.91	1.53
920R1180	1180	6-32x5/16	1.91	1.53
920R1366	1366	8-32x1/4	1.91	1.53
920R1181	1181	8-32x5/16	2.30	1.84
920R1367	1367	10-32x3/8	2.30	1.84
920-1368	1368	1/4-20x7/16	3.85	3.08
920-1398	1398	4-36x1/4	1.91	1.53
920R1199	1199	3/8-32x1/2x3/32	3.38	2.70
920-1196	1196	15/32x7/16x1/64	3.26	2.61

BRASS HEX NUTS

Nickel plated. **Pkg. of 100.** 8 oz.

920-1188	1188	4-40x1/4	1.78	1.42
920-1189	1189	6-32x1/4	1.78	1.42
920-1190	1190	6-32x5/16	2.50	2.00
920-1192	1192	8-32x5/16	2.38	1.91
920-1193	1193	10-32x5/16	2.48	1.98
920-1187	1187	1/4-32x7/16	3.51	2.81

NYLON HEX NUTS

Pkg. of 100. (4 oz.)

920-2554	2554	4-40x1/4	10.80	8.64
920-2555	2555	6-32x5/16	10.80	8.64
920-2556	2556	8-32x11/32	10.80	8.64

CABINET SCREWS

Oval head. Steel, nickel plated. 1 lb.

920-1382	1382	6-32x3/4	2.07	1.66
920-1383	1383	8-32x3/4	2.63	2.11
920R1111	1111	10-32x1/2	3.40	2.72

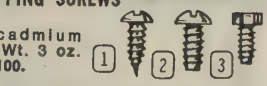
EXTERNAL LOCKWASHERS

Steel, cadmium plated. **Pkg. of 100.**

920R1139	1139	#4	1.13	.90
920R1140	1140	#6	1.10	.88
920R1141	1141	#8	1.10	.88
920R1142	1142	#10	1.13	.90
920-1144	1144	1/4	1.85	1.48
920-1143	1143	5/16	2.48	1.98

SELF-TAPPING SCREWS

Steel cadmium plated. Wt. 3 oz. **Pkg. of 100.**



1 ROUND HEAD A—SHARP POINT

Stock No.	Mfr's Type	Size Inches	PER PKG./100 1-9	10-Up
920-1801	1801	4x1/2	1.55	1.24
920-1802	1802	6x1/4	1.62	1.30
920-1803	1803	6x3/4	1.78	1.40
920-1804	1804	6x1/2	1.89	1.51
920-1805	1805	8x3/4	2.09	1.67
920-1806	1806	8x1/2	2.23	1.78

2 ROUND HEAD Z—BLUNT POINT

920-1807	1807	4x1/2	1.55	1.24
920-1809	1809	6x3/4	1.78	1.40

3 SLOTTED HEX HEAD Z—BLUNT POINT

920-1830	1830	6x1/4	1.78	1.40
920-1831	1831	6x3/8	1.96	1.57
920-1832	1832	6x1/2	2.09	1.67
920-1833	1833	8x3/4	2.30	1.84
920-1834	1834	8x1/2	2.43	1.94

SPADE BOLTS

Steel cadmium plated. Av. shpg. wt. 8 oz.

Stock No.	Mfr's Type	Size Inches	PER PKG./100 1-9	10-Up
920-1500	1500	6-32x5/16	5.02	4.01

INTERNAL LOCKWASHERS

Steel, cadmium plated. *Narrow rim. **Pkg. of 100.** 2 oz.

Stock No.	Mfr's Type	Size Inches	PER PKG./100 1-9	10-Up
920-1118	1118	#2	1.22	.97
920R1127	1127	#4	1.13	.90
920R1128	1128	#6	1.10	.88
920R1129	1129	#8	1.10	.88
920-1130	1130	#10	1.13	.90
920-1132	1132	1/4"	1.85	1.48
920-1146*	1146*	15/32"	2.84	2.27

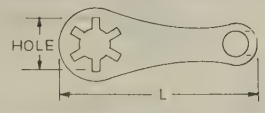
BATTERY HOLDERS

Low-cost, lightweight and sturdily constructed. Have good electrical contact along with low-leakage current. Snap-fit clips hold batteries securely. 2024T3 spring temper aluminum, nickel-plated brass contacts. Batteries within chart rules are in same size group. *Fit side by side; †fit end to end. Av. shpg. wt., 3 oz.

Stock No.	Mfr's Type	Holds	Burgess	Eveready	Mallory	EACH 1-9	10-Up
839-3204	104	1	Hg-4R	E4	RM4R	.65	.52
839-3239	139	1	Z, HG9	E9, E12	RM12R, ZM9	.33	.26
839-3240	140*	2	CD6, 9R	E91, E133	TR133, M-15F	.53	.42
839-8273	173	1	1, P6, 120	E93, 226	TR233, M14R	.48	.38
839-3285	185†	2	302599	635, 935	302599	.63	.50
839-3232	132	1	H163, H115R	E132, E115	TR132R, TR115	.48	.38
839-3276	176*	2	210	D99, A100, 950	Mn-1300	.53	.42
839-3266	166	1	U10	411	RM411	.48	.38
839-3277	177	1	U15	412	RM142R	.48	.38
839-3283	183	1	U20	413	RM413	.48	.38
839-3302	203P	1	2U6	1604	216	.60	.48

LOCKING TERMINAL LUGS

A wide selection of the most widely used locking terminal lug styles with hole sizes #4 through #10. Designed for broad usage in military, industrial and commercial applications. Average weight per 100, 2 oz.



Stock No.	Mfr's Type	L	Thickness	Hole	Fig.	PER PKG./100 1-9	10-Up
920-1300	1410-4	3/8	.018	#4	A	.20	.16
920R1301	1410-6	3/8	.018	#6	A	.20	.16
920-1302	1410-8	3/8	.018	#8	A	.20	.16
920-1303	1410-10	47/64	.018	#10	A	.20	.16
920-1304	1410-14	13/16	.018	1/4"	A	.20	.16
920-1311	1411-6	47/64	.020	#4	B	2.03	1.62
920-1320	1412-4	5/8	.018	#4	C	2.03	1.62
920R1321	1412-6	5/8	.018	#6	C	2.03	1.62
920-1322	1412-8	5/8	.018	#8	C	2.03	1.62
920-1330	1413-4	23/32	.018	#4	D	2.03	1.62
920-1331	1413-6	23/32	.018	#6	D	2.03	1.62
920-1332	1413-8	23/32	.018	#8	D	2.03	1.62
920-1341	1414-6	13/16	.018	#6	E	2.03	1.62
920-1342	1414-8	13/16	.018	#8	E	2.03	1.62
920-1343	1414-10	53/64	.018	#10	E	2.03	1.62
920-1351	1415-6	41/64	.108	#6	F	2.03	1.62

HOT TINNED SOLDER LUGS

A complete assortment of the most widely used solder lug styles. *Phosphor bronze. †Brass. Average weight per 100, 2 oz.

Stock No.	Mfr's Type	L	Thickness	Hole	Fig.	PER PKG./100 1-9	10-Up
920-1376	1485-6*	1/32	.012	#6	G	1.62	1.30
920-1381	1486-6*	3/16	.012	#6	M	1.62	1.30
920-1384	1488-4*	5/16	.012	#4	H	1.62	1.30
920-1385	1488-6*	5/16	.012	#6	H	1.62	1.30
920-1386	1488-8*	5/16	.012	#8	H	1.62	1.30
920-1390	1490†	3/4	.020	#10	N	2.03	1.62
920-1391	1491†	13/16	.020	#10	P	3.38	2.70
920-1392	1493†	1 1/8	.027	1/4"	R	4.05	3.24
920-1393	1494-6†	5/8	.020	#6	J	1.76	1.40
920-1395	1495†	5/8	.020	#8	K	2.03	1.62
920-1396	1496†	3/4	.020	1/4"	L	2.03	1.62
920R1397	1497†	1/4	.017	5/16"	S	2.43	1.94

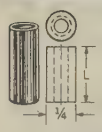
LOCKING

SOLDER

ALLIED'S HARDWARE

- FINEST OF MATERIALS
- MACHINED TO CLOSE TOLERANCES
- WIDE ASSORTMENT OF STYLES AND TYPES

BRASS SPACERS



Round spacers for raising sub-panels, chassis, variable capacitors, etc. Durable cadmium-plated brass. Precision machined; lengths and outer diameters accurate to ±1/32". Tapped bushings for threads indicated in tables. **Sold in packages of 10.** Av. shpg. wt., 6 oz.

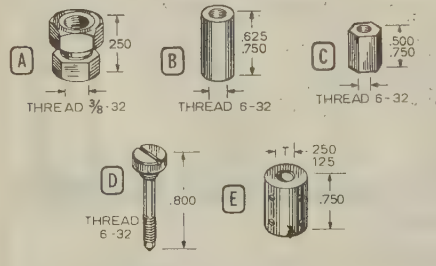
ROUND—NON-THREADED ¼" O.D.

Stock No.	Mfr's Type	Screw Size	Length Inches	PRICE PER PKG./10		
				1-9	10-24	25-Up
920-8500	8700	4	1/8	.89	.72	.60
920-2340	2340	4	1/4	1.07	.86	.72
920-2341	2341	4	3/8	1.31	1.01	.84
920-2342	2342	4	1/2	1.39	1.12	.93
920-2343	2343	4	3/4	2.08	1.67	1.39
920-2344	2344	4	1	2.74	2.19	1.83
920-8501	8701	6	1/8	.89	.72	.60
920-8504	8704	6	3/16	.96	.78	.64
920-2100	2100	6	1/4	1.07	.86	.71
920-8507	8707	6	5/16	1.19	.95	.80
920-2101	2101	6	3/8	1.26	1.01	.84
920-2102	2102	6	1/2	1.39	1.12	.93
920-2103	2103	6	3/4	2.08	1.67	1.39
920-2104	2104	6	1	2.64	2.11	1.76
920-8505	8705	8	3/16	.96	.78	.64
920-2105	2105	8	1/4	1.07	.86	.71
920-2106	2106	8	3/8	1.26	1.01	.84
920-2107	2107	8	1/2	1.39	1.12	.93
920-2108	2108	8	3/4	2.08	1.67	1.39
920-2109	2109	8	1	2.64	2.11	1.76

ROUND—THREADED ¼" O.D.

Stock No.	Mfr's Type	Tap	Length Inches	PRICE PER PKG./10		
				1-9	10-24	25-Up
920-2370	2370	4-40	1/4	1.21	.96	.80
920-2371	2371	4-40	3/8	1.41	1.13	.94
920R2372	2372	4-40	1/2	1.80	1.44	1.20
920-2373	2373	4-40	3/4	2.56	2.04	1.71
920-2374	2374	4-40	1	2.96	2.37	1.99
920-2120	2120	6-32	1/4	1.21	.96	.80
920-2121	2121	6-32	3/8	1.41	1.13	.94
920R2122	2122	6-32	1/4	1.67	1.34	1.12
920R2123	2123	6-32	3/4	2.43	1.94	1.62
920R2124	2124	6-32	1	2.84	2.27	1.89
920-2127	2127	8-32	1/2	1.80	1.44	1.20
920-2128	2128	8-32	3/4	2.50	2.04	1.71
920-2129	2129	8-32	1	2.96	2.37	1.98

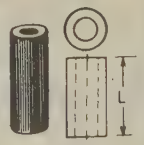
INSTRUMENT PANEL HARDWARE



Shaft lock is illustrated in Figure A; threaded standoffs in Figure B and C; chassis fastens in Figure E; captive panel screw in Figure D, shaft coupling in Figure E. In the table heading below, "T" indicates either the type of thread or the recommended board thickness. "X" in the table head indicates the hardware shank length except *maximum shaft diameter and †overall length. All are brass with cadmium plating, except Type 1510. Type 3200-6 and Series 3316 are brass with nickel plating. All are specially designed for high reliability performance and low cost. These low prices let you buy in quantity and save. Average shipping weight per pkg. of 10, 6 oz. **Pkg. of 10.**

Stock No.	Mfr's Type	Fig.	T In.	X In.	PRICE PER PKG. OF 10		
					1-9	10-49	50-Up
971-0451	1510	A	3/8-32	.250	7.15	5.72	4.78
971-0471	B1564-3/8	B	6-32	.625†	1.33	1.06	.89
971-0472	B1564-3/4	B	6-32	.750†	1.57	1.26	1.05
971-0476	B1575-1/2	C	6-32	.500†	1.18	.94	.78
971-0477	B1575-3/4	C	6-32	.750†	1.70	1.36	1.14
971-0517	3200-6	D	6-32	.800†	4.08	3.26	2.72
971-0521	3316A	E	.250*	.750†	13.03	10.42	8.70

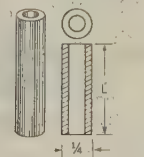
FIBER SPACERS



Round fiber bushings for screw sizes indicated in table. **Meet MIL-F-1148A, Grade CH** specifications. Ideal for use in raising sub-panels, chassis, capacitors, transformers, etc. in electronic assemblies. Have ¼" outside diameter. **In packages of 10.** Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	Screw Size	Length Inches	PRICE PER PKG./10		
				1-9	10-24	25-Up
920-8680	8880	4	1/8	.83	.66	.55
920-8683	8883	4	3/16	.91	.73	.61
920-2335	2335	4	1/4	.98	.78	.65
920-2336	2336	4	3/8	1.18	.94	.79
920-2337	2337	4	1/2	1.37	1.09	.91
920-2338	2338	4	3/4	1.83	1.46	1.22
920-2339	2339	4	1	2.22	1.77	1.48
920-8681	8881	6	1/8	.83	.66	.55
920-2130	2130	6	1/4	.98	.78	.65
920-8687	8887	6	5/16	1.08	.87	.72
920-2131	2131	6	3/8	1.18	.94	.79
920-2132	2132	6	1/2	1.37	1.09	.91
920-8696	8896	6	5/8	1.58	1.27	1.06
920-2133	2133	6	3/4	1.83	1.46	1.22
920-2134	2134	6	1	2.22	1.77	1.48
920-2140	2140	8	1/4	.98	.78	.65
920-2142	2142	8	1/2	1.37	1.09	.91
920-2143	2143	8	3/4	1.83	1.46	1.22
920-2144	2144	8	1	2.22	1.77	1.48

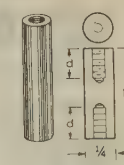
ALUMINUM SPACERS



¼" O.D. tubular spacers with precision machined ends, lengths accurate to ±.005". Aluminum with iridite finish (meets **MIL-C-5541** specifications). Ideal for raising sub-panels, chassis, etc. Inside diameter for #4 screws is .113"; for #6 screws, .140". **Sold in packages of 10 only.** Av. shpg. wt. 6 oz.

Stock No.	Mfr's Type	Screw Size	Length Inches	PRICE PER PKG./10		
				1-9	10-24	25-Up
920-8281	8481	4	1/4	.94	.75	.62
920-8283	8483	4	1/2	1.21	.96	.80
920-8301	8501	6	1/4	.94	.75	.62
920-8303	8503	6	1/2	1.21	.96	.80
920-8305	8505	6	3/4	1.48	1.18	.98
920-8307	8507	6	1	1.75	1.40	1.16

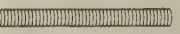
ALUMINUM POSTS



Round .250" O.D. metallic rods tapped through, or at each end. Support and separate components or structural members without need for long screws or machine nuts. Aluminum with iridite finish. Length and O.D. within ±.005" tolerance. *Minimum full-thread depth. **Sold in packages of 10 only.** Av. shpg. wt. 3 oz.

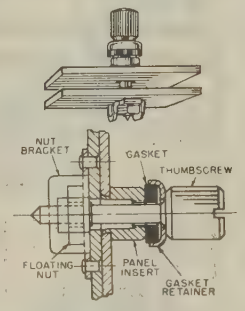
Stock No.	Mfr's Type	Thd.	Length Inches	*d	PRICE PER PKG. OF 10		
					1-9	10-24	25-Up
920R8123	8323	4-40	1/2	Thru	1.34	1.07	.89
920R8127	8327	4-40	1	1/4	2.02	1.61	1.34
920-8129	8329	4-40	1 1/2	1/4	2.56	2.04	1.70
920R8143	8343	6-32	1/2	Thru	1.34	1.07	.89
920R8145	8345	6-32	3/4	Thru	1.61	1.29	1.07
920R8147	8347	6-32	1	3/8	2.02	1.61	1.34
920R8149	8349	6-32	1 1/2	3/8	2.56	2.04	1.70
920R8151	8351	6-32	2	3/8	3.10	2.48	2.06
920-8152	8352	6-32	2 1/2	3/8	3.37	2.69	2.24
920-8153	8353	6-32	3	3/8	3.64	2.91	2.42
920-8155	8355	6-32	4	3/8	4.99	3.99	3.32

BRASS AND NYLON THREADED RODS



Threaded rods for a variety of applications in electronic and electrical equipment. Weather-proofed; can be used in outdoor equipment. Supplied in one-foot lengths. Av. shpg. wt. 9 oz.

Stock No.	Mfr's Type	Desc.	Thread	EACH	
				1-9	10-Up
920-1400	1400-1	Brass	6-32	1.22	.97
920-1401	1401-1	Brass	8-32	1.22	.97
920-1402	1402-1	Brass	10-32	1.22	.97
920-1403	1403-1	Brass	1/4-20	1.22	.97
920-1432	1420-1	Nylon	6-32	1.62	1.30
920-1434	1421-1	Nylon	8-32	1.76	1.40
920-1436	1422-1	Nylon	10-32	2.02	1.62
920-1437	1423-1	Nylon	1/4-20	2.43	1.94

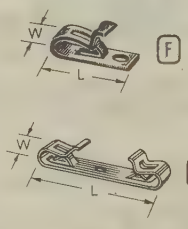


CAPTIVE HARDWARE

Stainless steel corrosion-free fastening hardware meets **MIL-E-16400 (Ships)** specifications, and will meet the requirements of **MIL-E-5400** and **MIL-P-11268 (Sig C)** when painted or dulled in accordance with these specifications. The complete captive assembly consists of a slotted head thumb screw, an insert bushing for securing the thumb screw to the panel, a captive floating nut assembly which is fastened to the chassis member of rack, and a gasket retainer and rubber gasket for use where a dustproof, splash-proof seat is required. Av. shpg. wt. 2 oz.

Stock No.	Mfr's Type	Description	Screw Size	EACH			
				1-99	100-499	500-999	1000-Up
904-0011	CS 101	3/4 Thumbscrew	8-32 NC-2	1.33	.96	.86	.77
904-0611	PIN-102	.119-.156 PL. Ins.	8-32 NC-2	.43	.30	.27	.24
904-0576	NB 100	Nut Bracket	8-32 NC-2	.15	.12	.11	.10
904-0403	GS 103	Gasket	8-32 NC-2	.08	.08	.07	.06
904-0407	GSR 118	Gasket Retainer	8-32 NC-2	.20	.14	.13	.11

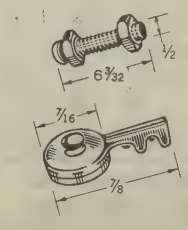
SPRING CLIPS



These tough little spring clips offer positive, reliable contact. They are very easy to connect and disconnect. All are precision-machined from brass and burr-free. Type 535 is nickel-plated. Lightweight, only 1 oz.

Stock No.	Mfr's Type	Fig.	Length	Width	Max. Wire	Mtg. Hole	EACH		
							1-99	100-999	1000-Up
920-9000	534	F	1"	3/8"	#10	#8	.06	.05	.04
920-0586	533	F	3/4"	5/16"	#14	#6	.05	.04	.03
920-0588	535	H	1 1/2"	5/16"	#14	#6	.22	.17	.14

SNAPS AND STUDS



Used to make or break temporary electrical connections in an instant. Ideal for fast testing of circuits. Equally suitable for permanent wire connections when you're in a hurry. Carefully designed for many applications in industrial and commercial uses. Snap connectors (K) fit threaded studs (J), listed below. May be cascaded together for multiple connections. Snaps have solder lug. Stud has threaded screw shaft with nut. Can be used for either panel or chassis mounting. Shipping weight per 100, 12 oz. **Sold in packages of 100.**

Stock No.	Fig.	Description	Size (In.)	PRICE PKG. OF 100		
				1-9	10-24	25-Up
873R0810	K	Snaps	7/16 Dia.x3/8 Lgth.	16.03	13.63	12.77
873R0812	J	Threaded Stud	1/2 Dia.x6 3/32 Lgth.	14.00	11.20	9.35

Warning Devices, Whoopers, Alarms, Window Foil

AUDIO EQUIPMENT

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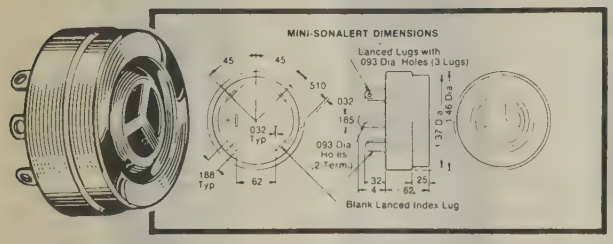
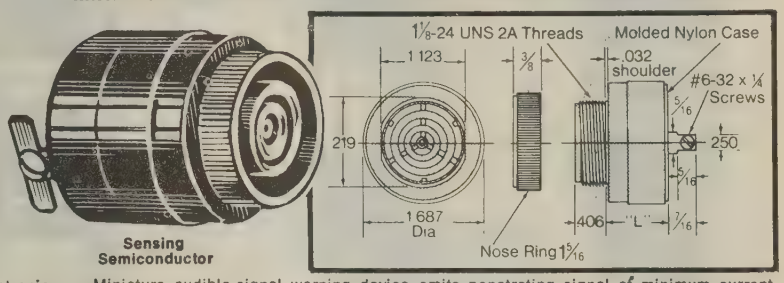
MINI-SONALERT ELECTRONIC AUDIBLE SIGNAL



Extremely compact electronic signal produces penetrating sound by purely electronic means—no moving parts. Circuitry solid-state for peak efficiency; lowest current requirements; highest reliability. No arcing; no RF noise; no mechanical wear. Lightweight units consume less current than normal indicator light; can be used to complement visual signals. Positive audible warnings instantly given in fault alarms for computers, fire signals, instruments, medical electronics and communications equipment, appliances, telephone signals and various protective equipment. Temp. range: —30° to +65°C. Frequency: 3500 Hz (±500 Hz). Polarized design. Size: 1.46″ dia. x .62″ long. Easily mounts on chassis or panel using either a metal or bakelite mounting wafer.

Stock No.	Mfr's Type	Nominal Operating Voltage	Operating Voltage Range	Max. Current @ Nom. V	Min. Sound Output	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50 Up
854R6540	SC1.5	1.5 V	1-4 V	4 mA	60 dB	7.35	5.88	4.91	4.17
854-6550	SC12	12.0 V	8-15 V	14 mA	70 dB	7.35	5.88	4.91	4.17

MINIATURE SONALERT SOLID-STATE AUDIBLE WARNING DEVICE

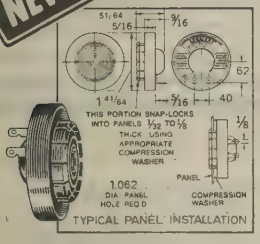


Miniature audible-signal warning device emits penetrating signal at minimum current. Solid-state circuit—no arcing—no RF noise, no mechanical wear, lowest failure rate with maximum efficiency. Compact, lightweight, versatile—consumes less current than normal indicator light. Ideal for use as safety device. Alerts to mechanical malfunctions in cars, communications, computers, fire signals, appliances, non-use of seat belts, medical electronics, etc. Temp. range: —20° to +65°C. Self-extinguishing black nylon case, 1.687″ dia. (length in table). *Types that emit pulsing sound output. †Model SC628W is a warbler unit, for use with SC628 or SC628H. Av. shpg. wt. 8 oz.

Stock No.	Mfr's Type	Sound Freq. (Hz)	Operating Volts	Oper. Curr. (mA)	Sound Level (dB)	Lgth. In.	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
854R6502	SC628	2900	6-28 DC	3-14	68-80	.812	8.62	6.90	5.76	4.90
854R6506	SC628H	4500	6-28 DC	3-14	68-80	.812	9.90	7.92	6.61	5.62
854R6508	SC628P	2900*	6-28 DC	3-14	68-80	1.375	15.72	12.58	10.50	8.93
854R6504	SC628A	2900	6-28 AC/DC	3-14	68-80	1.375	13.87	11.10	9.27	7.88
854R6500	SC110	2900	30-110 AC/DC	3-14	68-80	1.375	13.87	11.10	9.27	7.88
854R6525	SC110P	2900*	30-110 AC/DC	3-14	68-80	1.937	20.97	16.78	14.91	12.68
854-6530	SC628W†	2900*	6-28 DC	3-14	68-80	1.375	18.13	14.50	12.11	10.30

NEW!

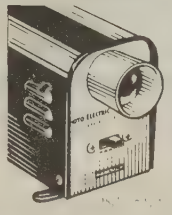
SNAP-IN ELECTRONIC AUDIBLE SIGNAL


THIS PORTION SNAP-LOCKS INTO PANELS 1/32 TO 1/8 THICK USING APPROPRIATE COMPRESSION WASHER
PANEL
1.062 DIA PANEL HOLE REQ'D
COMPRESSION WASHER
TYPICAL PANEL INSTALLATION

Insert in 1 1/16″ panel hole. 3 compression washer sizes for .125-.109″ panel thickness (PW1), .093-.056″ (PW2), or .050-.031″ (PW3). Min. 100 hours continuous at 65°C at max. voltage, or 1 minute on, 5 minutes off min. 1000 times. Brass terminals, hot tin finish, accept ⅛″ quick connect. 4-28 VDC, 64-84 db at 2 feet. Tone freq. 2900 Hz (±500 Hz). Wt. .39 oz.

Stock No.	Mfr's Type	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-Up
854-6565	SNP428	7.15	5.72	4.78	4.06
854-6566	PW1	.05	.04	.035	.03
854-6567	PW2	.08	.06	.05	.04
854-6568	PW3	.10	.08	.07	.06

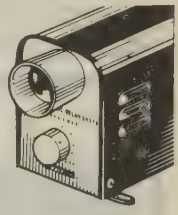
ARCHER PHOTO-ELECTRIC RELAY WARNING SYSTEM



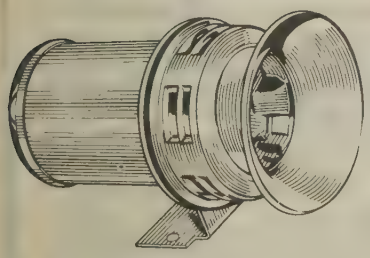
- **Ideal Burglar Alarm System**
- **May Be Used for Counting**

Archer photo-electric relay warning system alerts you to any entry in its path. Can be used as an intrusion alarm or counter system. Photocell receiver has sensitivity control to adjust for ambient light level to eliminate counterfeit responses. Switch exciter lamp is separately housed. Has 50-foot range for many applications. Each unit is 5½x4x2⅞″. Shpg. wt. 6 lbs.

910-6689. Type 275-489 ..... **Each 29.95**



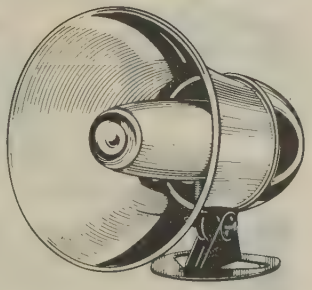
LOW COST INDOOR/OUTDOOR 120 VOLT SIREN



Build or expand your present alarm system. Easy-to-install siren is great for fire or burglary alarms. Or use as a sound warning device. Die-cast and spun-aluminum/steel construction. Encased 10,000-rpm motor operates from 110-120 VAC, 60 Hz, at 1.35 amps. Incl. mtg. bracket with pre-punched screw holes. Size, including bracket, 8½x5x5½″. UL listed.

910-5290. Type 275-497 . . **21.95**

ELECTRONIC WHOOPER

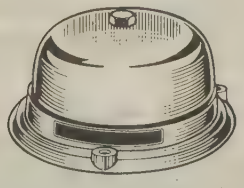


6 OR 12 VDC POWER ALARM EMITS A YELP HEARD FOR BLOCKS

Produces "yelping" or "whooping" sound that can be heard for blocks. Rousing, repetitive "whoop-whoop" is similar to that used in police and fire vehicles. Ideal for fire alerts, alarms in schools, businesses, industrial plants. Can be used all seasons — indoors and outdoors. It's weatherproof and waterproof. Perfect for boats, cars, homes. Attaches to swivel steel mtg base. Mounting is quick and easy. Draws less than 750 mA — low power drain. Of spun-aluminum construction. Complete with mtg hardware and screws. Size: 6 x 5¼ x 5¼″.

910-5265. Type 275-488 ..... **24.95**

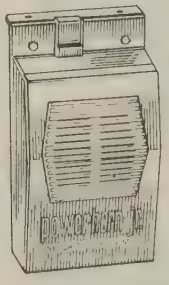
117 VAC BELL



Type 273-020. Another winner in the whole new line of security systems we're offering. 117 VAC bell emits a loud, clear ring that overcomes hi-level background noise. Metal base, 4 x 2″.

910-5230 ..... **Each 5.95**

BATTERY OPERATED BURGLAR ALARM

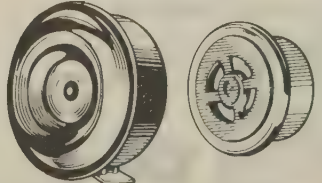


Type 275-494. Attaches to door or window for low-cost protection. Goes off when door or window is opened. Comes with screws and adhesive backing for temporary or permanent setup. requires 2 "AA" cells.

910-5275 ..... **Each 2.19**

910-5129. Type 23-468. "AA" cells each .15

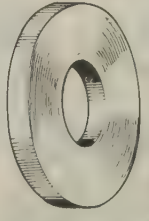
BATTERY-OPERATED BUZZERS



Gives off loud warning, connects to most Alarm Systems.

910-5225. Type 273-004
1½-3V Model ..... **Each .99**
910-5240. Type 273-049
6V Model ..... **Each 1.89**
910-5245. Type 273-051
12V Model ..... **Each 1.89**

WINDOW FOIL



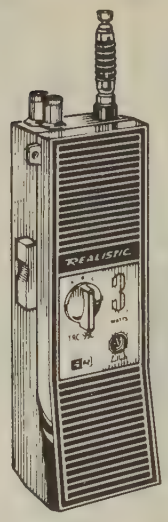
Type 275-502. Easy to apply adhesive strip is ideal for most alarm systems. Connects to alarm system with block connectors. The simple, inexpensive way to rig all your windows against tampering. Window foil sets off alarm at forced entry. Silver adhesive strip. Roll of 150 feet by ⅜″.

910-5305 ..... **Each Roll 2.89**

19

Realistic CB Walkie-Talkies, Electronic Kits

Ⓐ



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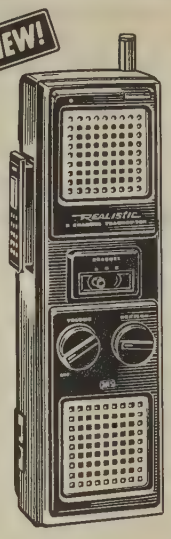
Ⓒ



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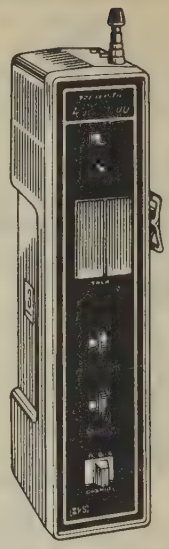


Ⓔ

Ⓐ THREE-WATT, 3-CHANNEL

Loaded with features. Adjustable squelch silences unit between calls. RF amplifier stage for increased sensitivity. Noise limiter. Automatic Gain Control for even volume when receiving strong stations. Push-pull audio output. Battery/RF indicator. Silicon transistors. Negative-ground chassis permits you to plug it into car cigarette lighter outlet with no chance of burn-out if antenna touches metal. With carry case, 10 "AA" batteries, plug-in channel 11 crystals. 9 x 7⅞ x 2⅞".

910-0062. Type 21-133. 5½ lbs. . . . . **Each 69.95**

Ⓑ FIVE-WATT, SIX-CHANNEL

Powerful 5-watt output. FET front-end for added sensitivity. Integrated circuit IF and 455 kHz mechanical filter for greater selectivity. Separate speaker and ceramic microphone. Adjustable squelch, noise limiter, automatic gain control, push-pull audio output. Battery/RF indicator. Center-loaded telescoping antenna. Can be powered by car cigarette lighter jack. 9x2⅞x2⅞". Complete with carrying case, 10 "AA" batteries, and plug-in Channel 11 crystals. Use alkaline or NiCad batteries for longer life.

910-0063. Type 21-134. 5½ lbs. . . . . **Each 89.95**

Ⓒ FIVE-WATT, 23-CHANNEL

Ready to operate on all 23 CB channels! Has full 5-watt input power, includes all crystals, and has every feature you could ask for! Dual-conversion receiver for super sensitivity, fine tuning, variable squelch, noise limiter, separate speaker and mike for finest audio. Center loaded telescoping antenna, RF/battery meter. Jacks for external mike, external speaker, antenna, DC power, battery charger. With 10 "AA" cells; can use optional rechargeable cells. FCC type accepted. Carrying case. 9¾ x 10⅜ x 2¼".

910-4415. Type 21-129. . . . . Each 149.95

Ⓓ 100-mW, 3-CHANNEL

Realistic TRC-27. No license required to operate this walkie-talkie. Channel 11 crystals included. Additional features are an adjustable squelch, push-pull audio and a separate speaker and mike for clear sound, automatic gain control, and a "Beeper" to alert other stations. Transceiver has a battery test button with an LED "OK" indicator light. Comes with a flip-type channel selector, earphone jack and jacks for external 12 VDC power, adjustable wrist strap and a battery recharger. Uses 8 "AA" cells (included) or 10 rechargeable nickel cadmium cells. 10¼ x 3⅛ x 2½". Optional crystals for 2 additional channels at right.

910-0065. Type 21-113 . . . . . Each 34.95

Ⓔ 1½ WATTS, 3-CHANNEL

Offers crystal-controlled transmit and receive on up to 3 channels. Superhet circuit with RF and 2 IF stages provides excellent 0.5 μV sensitivity for 10 db S +N/N ratio, 40 db selectability at 10 kHz. Features a combination speaker/mike, built-in noise limiter, 100% modulation, adjustable squelch control. High-output push-pull audio circuit, battery indicator with instant check button. Slide type channel selector, telescoping antenna, jacks for external antenna, battery charger, external power and earphone. Operates on 8 "AA" cells (included), rechargeable Ni-Cads or alkaline batteries. With carrying case and Channel 11 crystals. Size: 8⅜x3¼x2".

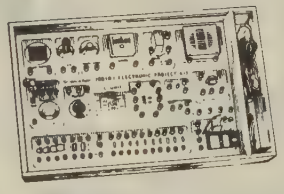
910-4502. Type 21-117. 2½ lbs. . . . . **Each 49.95**

EXTRA CRYSTALS THAT MEET FCC SPECS

Get more out of your walkie-talkie by ordering extra crystals which let you transmit and/or receive on more than one channel. **Specify CB frequency or channel, whether receive or transmit, model number and type of set.** (Does not include synthesizer crystals.)

910-C4507. Type 28-207 . . . . . Each 3.95

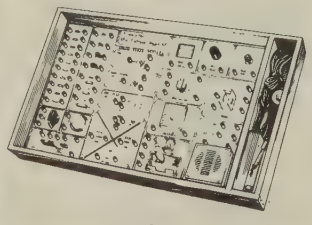
THE BEST IN ELECTRONIC PROJECTS & KITS



ELECTRONIC LAB KIT

100-In-1 Project Kit. Build radios, amplifiers, computer circuits—even has plans for strobe light, lie detectors, Cds photometer. Integrated circuit section. 214 p. instruction and theory manual. Needs no tools or soldering. In case. Requires one 9 V. battery and 2 "AA".

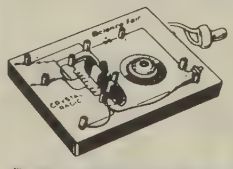
910-7081. Type 28-220 . . . . . **Each 29.95**
910-5112. 23-464. 9 V. Battery. . **Each .49**
910-5129. 23-468. "AA" Batt. . . **Each .15**



ELECTRIC PROJECT KIT

65-in-1 projects. Perform solar-powered and other electric experiments. Point-to-point connections—no soldering. Incl. solar battery, meter, transformer, code key, earphone speaker, instruction manual. Wood case. Uses 1 9 V. and 2 "AA" batteries. Wt. 5 lbs.

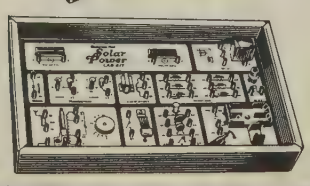
910-7084. 28-250 . . . . . **Each 21.95**
910-5112. 23-464. 9 V. Battery. . . **Each .49**
910-5129. 23-468. "AA" Cell. . . . **Each .15**



CRYSTAL RADIO KIT

Extra-easy to assemble and really low priced! This kit comes complete. Hear your favorite AM broadcasts. Runs on special precision crystal; can't wear out—no tubes or batteries. Shpg. wt. 2 lbs.

910-5507. Type 28-207 . . . . . Each 3.95

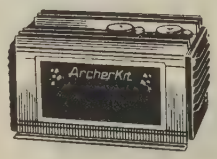


NEW!

SCIENCE FAIR® SOLAR ENERGY PROJECT KIT

Solar Lab Kit. A fascinating way to learn all about solar energy, the power of the future. Build sun-powered radios, transmitters, relays, a light beam communicator, a sound synthesizer; in fact there are 25 possible projects contained in the kit and many powered by light. Kit includes 2 solar panels, transistors, antenna coil—22 separate components—fitted in a 15x10x2" case. "Breadboard" construction allows for easy assembly. Safe and solderless connections. Comes with an easy-to-follow manual and schematics. Some projects require one 9V and 2 "AA" cells (not included). Ideal for beginners and hobbyist.

910-5545. Type 28-246 . . . . . Each 12.95



ELECTRONIC IGNITION KIT

Deluxe electronic ignition system kit. Capacitive discharge system puts more power in your car, cuts maintenance and boosts gas mileage. Develops more spark energy for quicker starts, faster acceleration, more complete combustion. Has in/out switch for instant performance comparisons. Solid-state circuit. Installs with no rewiring. 12 VDC negative ground. Can be easily assembled in one evening. 3x5½x3½". Shpg. wt. 3 lbs.

910-5585. Type 28-3203. . . . . Each 39.95

DRIVER ALERT RADAR SENTRY KIT

Warns of radar traffic zones. Gives audible warning within ½-mile range. Clips easily onto sunvisor. Solid-state circuitry. Battery operated (needs 2 "AA" cells). Magnesium case prevents radio, TV interference. Use may be regulated by state laws. Shpg. wt. 1¼ lbs.

910-5594. Type 28-4008. . . . . Each 24.95
910-5129. 23-468. "AA" Cells. . . . . **Each .15**

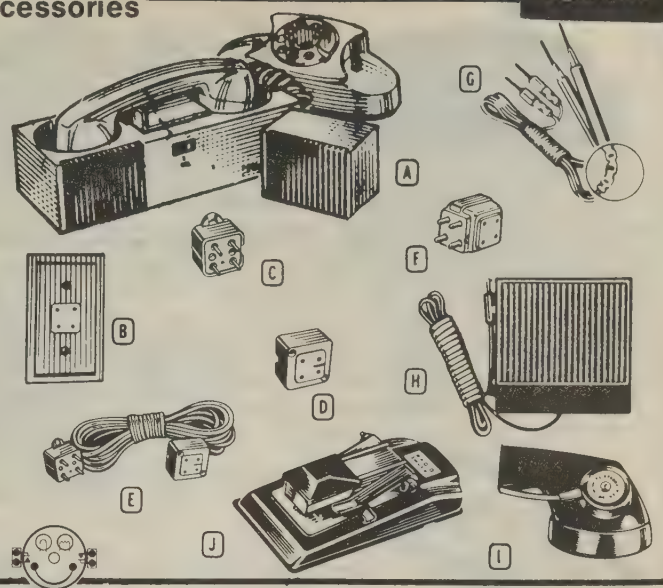
ELECTRONIC IGNITION KIT

SCR electronic ignition kit. Electronically-fired spark improves the power and performance of your car. You'll get better gas mileage—longer plug and point life, too. Installs in your car's ignition coil without removing any wires. Great for those long trips. For 6 and 12-volt negative ground systems. Shpg. wt. 1½ lbs.

910-5577. Type 28-3326 . . . . . Each 9.95

Telephone Accessories and Intercoms

Telephone Accessories



A Model 43-230. 2-Way Phone Amplifier. "Hands-free" conversations. Just place receiver in cradle and talk. Solid-state. No installation. Earphone. Uses 9-v battery.
910-0046. Shpg. wt. 4 lbs ... 15.95

B 279-1507. Phone wall jack fits std. wall conduit box. 2, 3, 4-wire system.
910-7080. 4 oz 2.59

C Type 279-366. Phone Plug. 4-conductor plug fits jack 279-367.
910-7036. ¼ lb 1.29

D 279-367. Phone Jack. Easy hook-up. Matches plug above.
910-7037. ½ lb 1.49

E 279-1261. 30-ft. extension cord, 4-wire plug, std. jack. Easy hook-up.
910-7065. 1¼ lb 3.99

F 279-370. Dual jack-in-a-plug connects 2 phones to 1 jack. Wireless.
910-7046 ..... 2.29

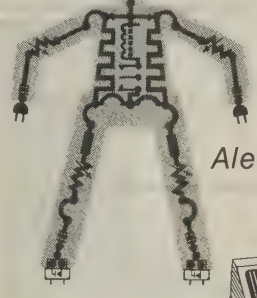
G Set of Test Leads. Set of "Flexiprobe" test leads have molded strain relief on probes to reduce chance of wire breakage. 60" long. 4 oz.
910-6974. Type 278-740 Each 1.89

H Remote Foot Switch. Connects to any recorder equipped with remote control plug. Allows control without use of hands. Shpg. wt. 1½ lbs.
910-0101. Type 44-610 . Each 3.49

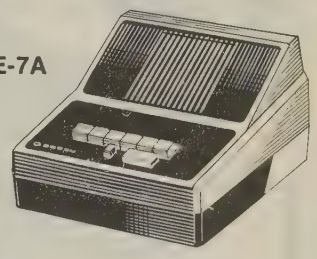
I Telephone Pickup Coil. Record phone calls without wiring. Attaches to amplifier to drive speaker. Suction-cup mounting. Shpg. Wt. ½ lb.
910-0104. Type 44-533 . Each 1.49

J Precision Tape Splicer. Holds tape securely while you're making splices. Cuts and trims tape. ⅜" splicing tape included. Shpg. wt. 1 lb.
910-0107. Type 44-212 . Each 3.99

SOLID-STATE INTERCOMS



Alec Electron

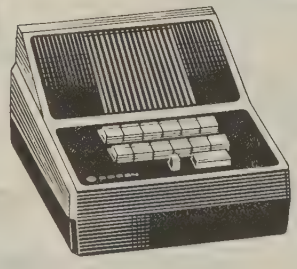


IE-7A

These hard-working intercoms can be used almost anywhere — offices, stores, factories, restaurants, warehouses, schools, clinics, residences. Remotes can be private, which prevents eavesdropping, or non-private, for hands-free reply with no interruption of work. Choose a system with up to 12 remotes or one in which up to 13 stations can call each other. To use models IE-7A or IE-13A with RIE-1A as a Single Master/Multiple Remote System, use a 3-conductor unshielded cable (Type 3SC) between master and each remote. IE-7A and IE-13A may also be used in an All Master system.

IE-7A MASTER STATION

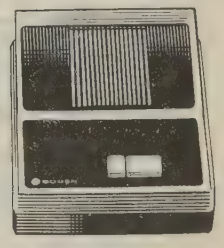
For systems up to 7 stations. Smartly-styled two-tone beige and brown cycolac units for desk top or wall mounting. Master has volume control, press-to-talk bar with dictate lock, rugged push-push selector switches with individual station identification strips. One watt peak output. Highly sensitive amplifier, compact external power supply; operates from 120VAC 50/60 Hz. Dimensions: 7-9/16" x 6-7/8" x 4-3/8". Shipping weight 4 lbs.
733-0006. Type IE-7A ..... Each 66.30



IE-13A

IE-13A MASTER STATION

For systems up to 13 stations. Identical to the IE-7A above, the IE-13A features the same push-button convenience, smart styling, and reliability, with the added ability to communicate with several more stations.
733-0007. Type IE-13A ..... Each 83.58



RIE-1A

RIE-1A REMOTE

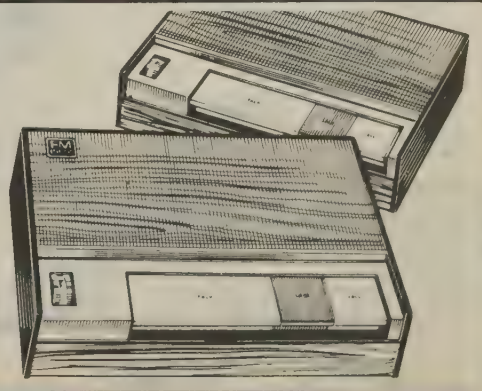
Use with the IE-7A or IE-13A to complete a Single Master Multiple Remote System. Can originate call to master and function privately or non-privately as desired. Unit has press-to-talk bar and privacy switch. Shipping weight 3 lbs.
733-0067. Type RIE-1A ..... Each 23.45

CABLE FOR "IE" INTERCOMS (100-FT. SPOOLS)

708-5397. Type 1172. 2-cond. unshielded. 2 lbs. ..... **Each 8.58**
768-9149. Type 832203. 3-cond. unshielded. 2 lbs. ..... **Each 10.95**
758-2099. Type 04084. 9-cond. unshielded. 5 lbs. ..... **Each 16.37**
768-9155. Type 832212. 12-cond. unshielded. 5½ lbs. ..... **Each 24.55**
708-5066. Type 1323. 16-cond. unshielded. 7 lbs. ..... **Each 30.81**
768-8822. Type 722201. 1-cond. vinyl shielded. 1 lb. ..... **Each 18.04**

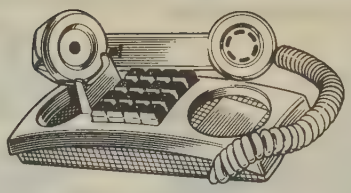
REALISTIC® WIRELESS INTERCOMS

FM WIRELESS 2-STATION INTERCOM SYSTEM
NO FLUORESCENT NOISE OR STATIC!
PERFECT FOR HOME OR OFFICE



Frequency modulation eliminates "AM" line noise. No connecting wire — just plug units into two outlets operating from the same distribution transformer. Illuminated Talk-Bar is easy to find, even in the dark. "Beep" call tone alerts remote stations. Locks "on" for monitoring child's room, etc. Since no wiring is required units may be moved from room to room as needed. Solid state for low current drain, never needs to be turned off. Off/Volume control. "Talk," "Lock" and "Call" controls. Adjustable squelch eliminates noise between calls. Attractively styled case fits into any decor-simulated walnut with white and black accents.
910-0175 Type 43-212. U.L. listed ..... Pair 69.95

Intercom Systems



SERIES TSL-X

The versatility of Series TSL-X affords a wide variety of possible installations. You may select an all-master system (TSL-16X or TSL-8X phones) in which any phone can call any other. With accessories, you may connect your phones to a paging system or to an outside telephone line. You may replace one or two masters with multiple remotes on a common line for paging reply. A remote may also be wired to intercept calls to its master, or to select between commonline and secretarial intercept modes of operation. Other possibilities include a single master-multiple remote system, or an intermix system, using one or more selector buttons to provide any master with remotes who can call and reply only to it.

TSL-X MULTI-CHANNEL PHONES

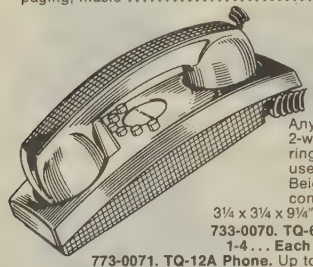
In 8-station TSL-8X system, up to four private conversations can be held at once; in 16-station TSL-16X system, up to eight; any station talks with any other. Push desired number of selector buttons for conference calls. To call, simply lift phone, press selector button, then press ring button; buzzer sounds at called station. Each handset has a paging button. 3½x9½x3¼". Beige finish. Use cable with at least four conductors more than number of phones. Shpg. wt. 4½ lbs.

733-0078. TSL-8X Phone. One ring, seven station selector buttons. Calls up to seven other stations ..... **1-4 ..... Each 73.15** **5-Up ..... Each 54.70**

733-0079. TSL-16X Phone. One ring, 15 station selector buttons. Calls up to fifteen other stations ..... **1-4 ..... Each 84.00** **5-Up ..... Each 62.85**

733-0063. PRS-16A Power Supply. One required per system. Use 3-conductor cable. 6x2x3½". 117 VAC. Shpg. wt. 4 lbs. ..... **1-4 ..... Each 48.59** **5-Up ..... Each 43.65**

773-0075. TRD Phone Page Adapter. Allows paging thru PA system. Volume control for separate paging, music ..... **1-4 ..... Each 34.48** **5-Up ..... Each 31.00**



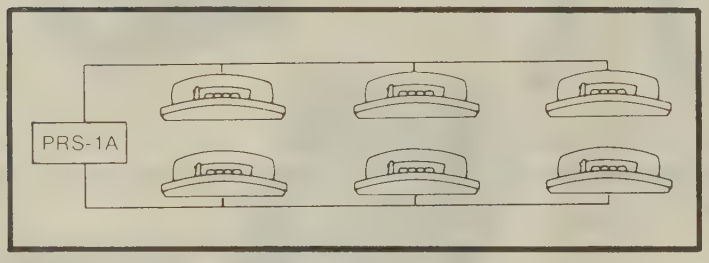
TQ COMMON-TALK PHONES

Any station talks with any other station, but only one 2-way conversation can be held at a time. Has selective ringing, conference call feature. Total of 7 stations can be used in TQ-6A system, 13 stations in TQ-12A system. Beige finish. Use cable, listed below, with at least three conductors more than number of phones in system. Size, 3¼ x 3¼ x 9¼". Shpg. wt. 4 lbs.

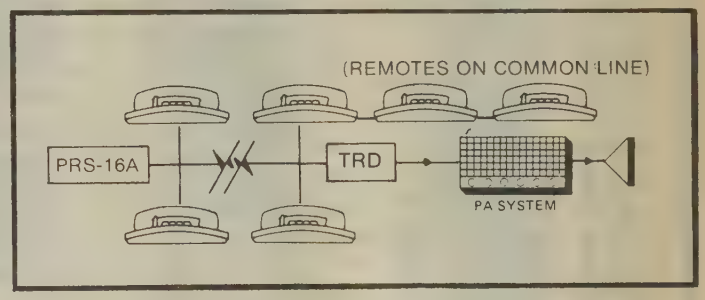
733-0070. TQ-6A Phone. Up to 7 stations. **1-4 ... Each 46.10** **5-Up ... Each 34.50**

773-0071. TQ-12A Phone. Up to 13 stations **1-4 ... Each 51.60** **5-Up ... Each 38.65**

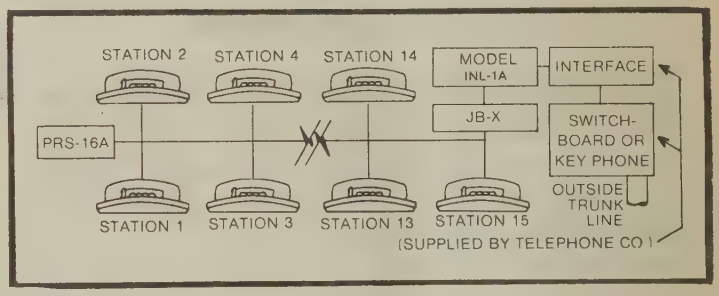
733-0060. PRS-1A Power Supply. One required per system. Use 3-conductor cable below. 3½ x 6 x 2". 117 VAC. Wt. 4 lbs. ..... **1-4 ... Each 29.14** **5-Up ... Each 26.20**



SERIES TQ SYSTEM 1. In the above 6-station (TQ-6A) system one conversation can be held at any one time. This can be a single two-way call or a conference call with as many stations as desired (up to 7 stations in a TQ-6A system, 13 stations in a TQ-12A system). Any station may converse with any other station.



SERIES TSL-X SYSTEM CONNECTED TO PAGING SYSTEM. In the above system multiple conversations can be held simultaneously. Any station may converse with any other station. Conference calls are possible, using the desired station selector buttons. Any phone can page and remotes reply on common line.



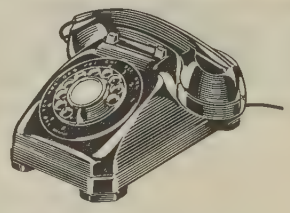
SERIES TSL-X SYSTEM CONNECTED TO OUTSIDE TELEPHONE. In this optional arrangement, the TSL-X system has been tied into the outside telephone system, thereby eliminating the need for outside phones at each station. Up to three internal conversations with TSL-8X phones (seven with TSL-16X phones) and one external conversation can be held simultaneously. Any TSL-X phone can make or receive outside calls via the key telephone or central switchboard.

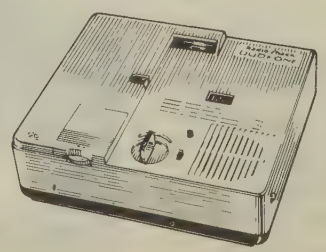
CABLE FOR TSL-X AND TQ PHONES (100-FT. SPOOLS)

No. of Cond	Lbs./ 100'	Stock No.	Mfr's Type	EACH	No. of Cond.	Lbs./ 100'	Stock No.	Mfr's Type	EACH
3	2	768-9149	832203	6.15	15	7	708-5407	1181/15	24.00
6	4	768-9152	832206	13.90	....	....	.....	....	....
12	5½	768-9155	832212	13.50	....	....	.....	....	....

DUOFONE ANSWERING SYSTEM

- **Answers Up To 20 Incoming Calls**
- **Allows 30-Second Reply To Your 15-Second Pre-Recorded Message**

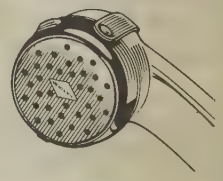




No more worrying about missing important calls or business. DUOFONE answers your phone automatically and gives the caller your 15 second pre-recorded message. Its built-in recorder tapes caller's 30 second reply for playback at your convenience. "Message Maker" control center allows you to change your outgoing message anytime. See-thru window indicates calls received. Fast-forward button quickly locates any message for playback. When you return home just switch off the DUOFONE and your telephone returns to normal operation. Comes complete with 3 "D" cells, cord and adapter plug. Size: 8¾x7¹⁵⁄₁₆x1⅞". Shpg. wt. 5 lbs.
910-0183. Type 43-250 ..... **79.95**

TELEPHONE AMPLIFIER

- **Helps The Hard-Of-Hearing**
- **Instant Installation**



This four transistor telephone amplifier helps the hard-of-hearing by boosting the incoming voice signal up to five times its normal level, eliminating surrounding noisy distractions. "Snaps-On" any standard phone for instant installation. Fingertip volume control. Snap band, battery. Size: 2⅝x1".
910-5320. Type 277-007 ..... **Each 10.95**

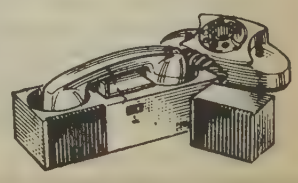
STANDARD DIAL TELEPHONE

- **Reconditioned**
- **Guaranteed**
- **For Extension Phone or Intercom**

Use this standard telephone as extension phone, intercom, digital accessory. Complete with cord, dial mechanism and bell. Shpg. wt.: 4 lbs.
910-7040. Type 279-371 ..... **11.95**
3-Conductor Coiled Cord. Stretches to 6'
910-6931. Type 278-361. ½ lb. **3.49**
4-Conductor Coiled Cord. Stretches to 15'.
910-6995. Type 278-1389. ¼ lb. **6.95**

TWO-WAY TELEPHONE AMPLIFIER

- **Needs No Installation**



Ideal for family or business conference calls. Just put the phone in the cradle to turn the amplifier on. A volume control lets you set the listening level. Earphone jack for private listening. Amplifier: 10¼x4½x3¼". Speaker: 3½x2¼x¾". Complete with battery.
910-0200. Type 43-230 ..... **Each 15.95**

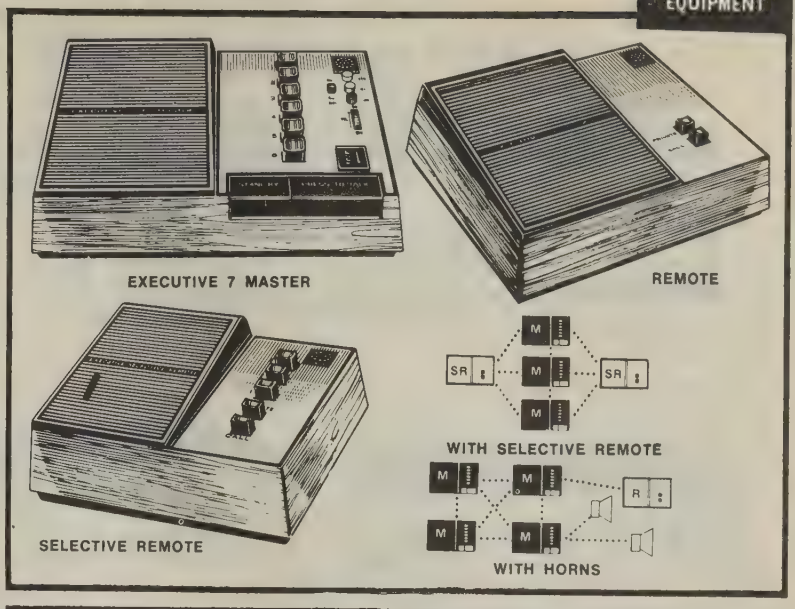
Solid-State & Indoor-Outdoor Intercoms

EXECUTIVE SERIES HIGH-POWER INTERMIX INTERCOMS

A versatile professional intercom system with considerable intermix capability—permits any combination of up to seven masters and remotes, including paging horns with the Executive 7 Master. Permits up to thirteen stations with the Executive 13 Master. Any remote station may originate calls to its master. Three masters may be called by one selective remote. System has one watt of power for station-to-station use, with four watts of power reserved for paging into very noisy areas. A higher power paging and a "hands-free" talk back feature are available when the system is connected, through the **PR-17** relay to a separate PA system.

Both masters and remotes have a privacy switch which gives "hands-free" reply and eliminates eavesdropping. Masters also have a monitor light which indicates when they are being called (or listened in on) and a busy light which indicates that the called station is busy. All masters include a U.L. listed 110 VAC power supply and a terminal box to facilitate installation. Designed with a balanced line to eliminate cross-talk and reduce audio line loss. Attractive high impact charcoal brown cabinets with wood grain accents and aluminum trim. Cable requirements are one pair of wires plus one pair for every station in the total system. Also add one shielded wire between each remote and its Master(s). Dimensions and shipping weights for the separate system components are supplied below.

Model Executive 7 Master Seven Station. Size: 9½x6¾x3½". 2½ lbs.
790-4000 ..... **Each 86.84** **5-Up** ..... **Each 82.50**
Model Executive 13 Master Thirteen Station. Size: 9½x6¾x3½". 2½ lbs.
790-4001 ..... **Each 105.21** **5-Up** ..... **Each 99.95**
Model Executive 1 Remote ... Single Station. Size: 6¾x6¾x3½". 2 lbs.
790-4002 ..... **Each 20.87** **5-Up** ..... **Each 19.85**
Model Executive Selective Remote Station. Size: 6¾x6¾x3½". 2 lbs.
790-4003 ..... **Each 27.55** **5-Up** ..... **Each 26.25**
Model PR-17 Paging Relay. Shpg. wt. 1 lb.
790-4004 ..... **Each 33.31** **5-Up** ..... **Each 31.75**
Model HDA-5-8-Horn. 7½ watts, 8 ohms, swivel base. 6" bell. 3½ lbs.
790-4005 ..... **Each 19.20** **5-Up** ..... **Each 16.33**



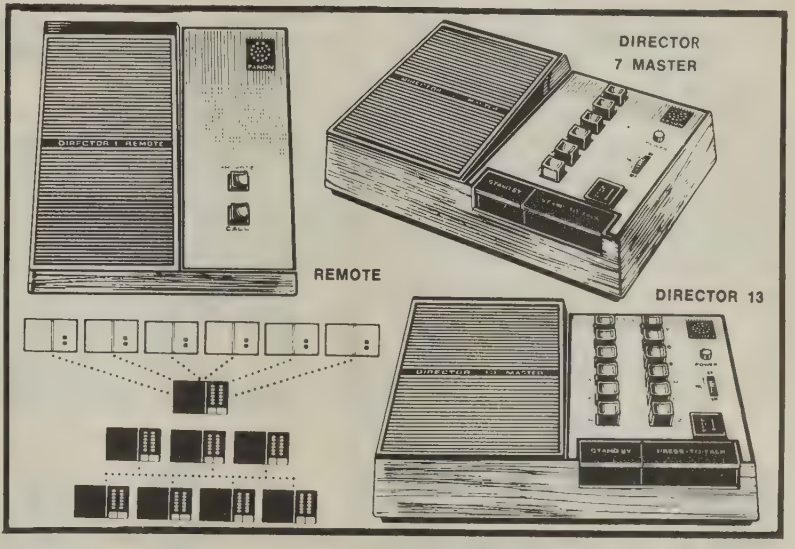
DIRECTOR SERIES— MASTER-TO-MASTER OR MASTER-TO-REMOTE SYSTEM

All master system uses up to seven Director 7's or thirteen Director 13's and permits any station to selectively communicate with any other station or group of stations. Up to three simultaneous conversations may take place in a Director 7 system (six in a Director 13). Conferences between several stations can also be held.

Master to remote system permits one Director 7 master to converse with up to six Director 1 remotes (twelve remotes with Director 13 master). Master can selectively speak with any one or more remotes; however, remotes cannot speak to each other. Remotes reply to the master "hands-free" and can operate either private or non-private by use of privacy switch. Full 1-watt power allows stations to be up to 500 feet apart. Masters have volume control on/off switch, talk/listen switch with lock, U.L. Listed 110-120 VAC power supply. Designer styled high impact case may be used on desk or wall mounted. 9½x6¾x3½". Brown with wood accents, aluminum trim.

Cable requirements: use one more conductor than total number of stations in the system.

Model Director 7 Master Seven Station. Size: 9½x6¾x3½". 2½ lbs.
790-4010 ..... **Each 48.35** **5-Up** ..... **Each 44.50**
Model Director 13 Master Thirteen Station. 9½x6¾x3½". 2½ lbs.
790-4011 ..... **Each 59.29** **5-Up** ..... **Each 56.35**
Model Director 1 Remote ... Indoor Station. 6¾x6¾x3½". 2 lbs.
790-4012 ..... **Each 15.87** **5-Up** ..... **Each 14.95**

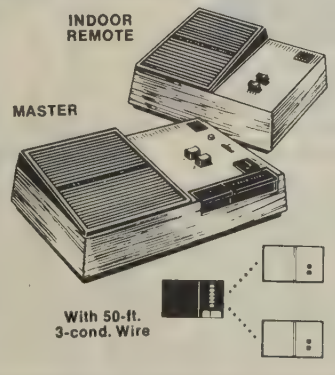


DELUXE EXPANDABLE TWO-STATION INTERCOM SYSTEM

- **Includes Talk/Lock Position**
- **Two Station Selector Switches**
- **Privacy and Non-Privacy Switch**

System includes master, indoor remote and 50-ft. wire. When Director D Outdoor Remote is added, remotes operate non-private only. High impact charcoal brown cabinets with wood grain accents, brush aluminum trim; can be desk or wall mount. Master 9½x6¾x3½".

Model Director Master 3S System. Indoor or outdoor remote can be added. Wt. 3 lbs.
790-4015 .... **Each 50.00** **5-Up** .... **Each 47.50**
Model Director 3 Remote ... Indoor Station. 6¾x6¾x3¼". Shpg. wt. 2 lbs.
790-4016 .... **Each 15.87** **5-Up** .... **Each 14.95**
Model HDA-5-8 Horn. 7½ watts, 8 ohms, swivel base. 6" bell. Shpg. wt. 3½ lbs.
790-4005 .... **Each 15.45** **5-Up** .... **Each 14.70**



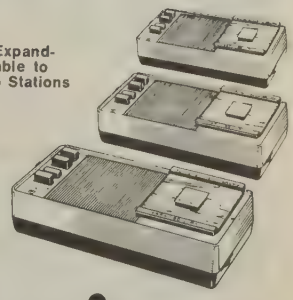
MASTER-TO-MASTER SYSTEM

- **Three Masters—Two 50-ft. Cables**
- **Easy, Instant Plug-in Installation**
- **Use Masters Up to 500 ft. Apart**

No elaborate wiring—plug-in connectors for "instant installation." Anyone can hook up entire system in minutes. Fully selective; any station can speak to one or more stations. Permits conference calls. Two separate conversations may proceed simultaneously. Powerful IC circuitry allows distance of 500 ft. between first and last master station. Press-to-talk switch has lock position. Pilot light. Brown/wood grain accents.

Model IN-603. Starter system includes three Masters (7x3½x2"), two 50-ft. cables. Wt. 3¾ lbs.
790-4020 ..... **Each 111.30** **5-Up** ..... **Each 89.95**
Model IN-600. Additional Master Station with 50-ft. or plug-in cable. Shpg. wt. 2 lbs.
790-4021 ..... **Each 44.07** **5-Up** ..... **Each 33.50**
Model 6C-50. Extra 50-ft. cable with plugs. 2½ lbs.
790-4022 ..... **Each 16.36** **5-Up** ..... **Each 12.75**

Expandable to 5 Stations

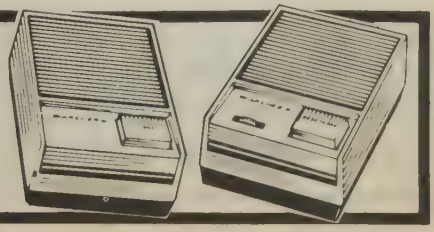


INDOOR/OUTDOOR INTERCOM

- **Inexpensive to Buy and Use**
- **Practical, Battery-Operated**

Two-station indoor/outdoor intercom system. Remote signals master—even when system is off. For desk top or wall mount. Ideal for checking callers at the front door, for campers, boats, and trailers. Wired system offers the advantage of economy—operating on standard batteries, it is inexpensive to maintain.

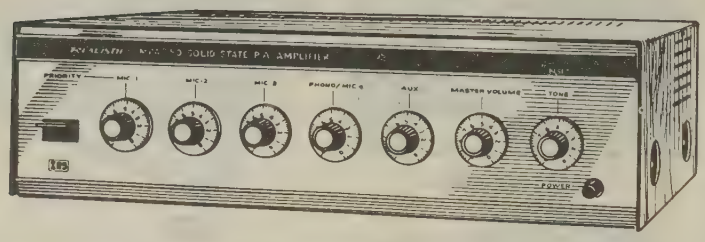
System can be used where no AC outlet is available. Batteries and 66-foot connecting wire included. Size: 4⅛ x 3 1/16 x 1¾". Shipping weight: 3 lbs.
910-0181. Type 43-221 ..... **Each 12.95**



Larger Quantity Price Breaks Available on Request

Public Address Amplifiers

50-WATT PA AMPLIFIER WITH INSTANT "PRIORITY" PAGING SWITCH



- **Complete, Solid-State PA Control Amplifier!**
- **Switch for Mike-1 Lets You Override All Other Channels**

Model MPA-50. Complete, solid-state PA control amplifier with four mike inputs plus an auxiliary input, for a total of five mixable inputs! Master volume and tone controls, plus pushbutton power on/off, let all gain controls "stay put" without constant readjustment. "Push-Down" Switch for Mike-1 lets you override all other channels for paging. Rear-panel switch permits Mike-4 input to take a phono in place of mike. Outputs: 4, 8, 16 ohms, 25 volt and 70.7-volt line. Protective circuit cuts off output stages if overload occurs and "overload light" flashes on. 50 watts rms at 8 ohms. Frequency response: 100-10,000 Hz at full power. UL Listed. Size: 4¼ x 13¾ x 11". For 115 VAC. Shpg. wt. 12 lbs.
910-0010. Type 32-2021 .....Each 129.95

MODEL MX6A-T FOUR-CHANNEL SOLID-STATE MIXER-AMPLIFIER

- **Four Hi-Z or Lo-Z Mike Channels**
- **Separate Volume Controls for Each Input**

Model MX6A-T. Makes it possible to add up to four extra hi- or lo-Z mike channels to amplifiers or tape recorders. Two of the four channels can be used for high-level tuner or phono input. Provides fine performance with electric guitars. Individual volume controls for each input. Up to three mixer-preamps may be paralleled to give 12 inputs. Separate high and low-level outputs drive any amplifier through its mike or aux. input; drives power amplifiers with 5-V or better sensitivity.

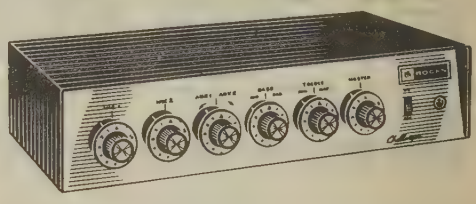
Response: ±2 dB, 50-20,000 Hz. Inputs: four mikes (hi-Z, 150k; lo-Z, 200 ohms); two aux., 250k. Temperature Range: –20° to +70° C. Output: 6 V at 2%, 4 V at 1%, 2 V at 0.5%. Gain: mike (hi-Z, 60 dB), 4 mV at 4 volts; (low-Z, 80 dB), 0.4 mV at 4 V output. Hum/Noise: –68 dB below 5 V. Output Impedance: 2000 ohms. For 117 VAC; power consumption 1.2 watts. 9¼x6x2⅝". Shpg. wt. 6 lbs.
733-0037. 1-3.....Each 72.06 4-Up.....Each 64.75

MODEL CHS100A POPULAR-PRICED SOLID-STATE PA AMPLIFIER

- **100 Watt Power Output**
- **Two Mike and Two Auxiliary Inputs**

Model CHS100A. Moderately priced amplifier is loaded with professional features for a variety of PA applications. Has two microphone inputs and two separate auxiliary inputs. Microphone inputs can be high-impedance unbalanced, low-impedance unbalanced or low-impedance balanced (using optional plug-in transformer). One microphone input is convertible to magnetic cartridge; all mike inputs accept Type XLR-3-11 connector. Has 5 M-sec attack time, 2 second delay time. Two output jacks.

Power Output: 100 watts. Frequency Response: ±2 dB, 70-12,000 Hz. Outputs: 4, 8 and 16 ohms; 25 V center-tapped and 70 V balanced lines; tape output, 1000 ohms. Controls: microphone 1, microphone 2, auxiliary 1, auxiliary 2, master volume, bass, treble, compression switch, power switch and pilot light. 16⅜x13¾x4¼" For 117 VAC; draws 300 watts. Shpg. wt. 26 lbs.
733-1030. 1-3.....Each 233.71 4-Up.....Each 209.95



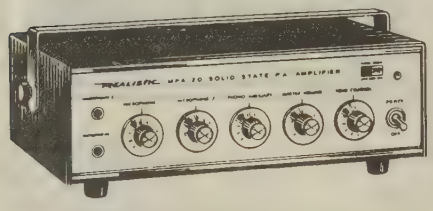
C SERIES ALL-SILICON SOLID-STATE ECONOMY-PRICED PA AMPLIFIERS

Model C100. Complementary transistor circuitry assures high reliability of power transistors. Has inputs for two Hi-Z mikes and two high-level auxiliary (for tuner, recorder or phono); simultaneously mixes two microphones and one auxiliary. Mike inputs have filters to protect against RF interference. Can be wired for music muting.

Power Output: 100 watts. Sensitivity: mike, 3mV; aux, 0.5 V for full output. Hum and Noise: mike, –60 dB; aux, –70 dB. Outputs: 4, 8 and 16 ohms balanced; 25 V and 70 V balanced line; tape, booster amplifier jack; two plug-in speaker sockets and screw terminals. Controls: master volume, two mike gain, auxiliary gain, separate bass and treble. Advanced design permits continuous operation. Compact steel cabinet, 14⅝x13¾x3¾". For 117 VAC. Shpg. wt. 18 lbs.
733R0083. 1-3 .....Each 193.72 4-Up .....Each 174.00

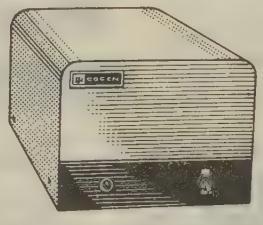
Model C60. As above, but 60 watts output. 16 lbs.
733-0082. 1-3.....Each 160.32 4-Up.....Each 144.00

Model C35. 35 watts 14⅝x12¾x3¾". 14 lbs.
733-0081. 1-3.....Each 138.61 4-Up.....Each 124.50



MODEL 32-2020 SOLID-STATE 20-WATT PA AMPLIFIER OPERATES INDOORS OR FROM CAR OR TRUCK

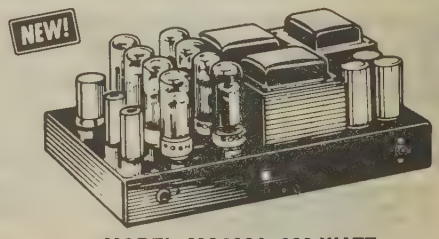
Has 117 VAC line cord and 12 VDC power cord, for indoor or mobile use. Two mixing mike inputs. Controls: volume, phono/auxiliary, master volume, tone. Ideal for sound trucks, outdoor music/PA systems or indoor music/PA systems. Adjustable bracket for under-dash mounting. Aluminum panel, black metal case. UL listed. Power output: 20 watts at 4, 8, 16 ohms; plus 25 and 70 volt line output. Input impedance: 100,000 ohms for microphone and phono. Sensitivity: microphone, 3 mV; aux and phono, 270 mV. Response: ±1 dB, 20-20,000 Hz (at full power, 200-10,000 Hz). Size: 3x10x7½". Shpg. wt. 12 lbs.
910-0011 .....Each 79.95



MODEL MO100A 100-WATT BOOSTER AMPLIFIER

- **Power Output 100 Watts RMS**
- **Frequency Response 8 to 50,000 Hz**

Built-in provision permits paralleling any number of power amplifiers to multiply power input. With variable frequency audio generator input, this can be a relatively inexpensive power source capable of driving servos, motors, vibration tables, ultrasonic equipment. Frequency Response: 8-50,000 Hz, 1 dB. Power Output: 100 watts rms. Output Impedance: 16 ohms; balanced 25 volts, 70 volts, 115 volts. Hi-impedance; Lo-impedance with optional TL600 transformer. For 105/125 VAC, 50/60 Hz. Size: 8x13x6¾". Shpg. wt. 33 lbs.
733-0010. 1-3 .....Each 214.92 4-Up .....Each 193.05



MODEL MO200A 200-WATT BOOSTER AMPLIFIER

- **Power Output 200 Watts RMS**
- **Frequency Response 8 to 50,000 Hz**

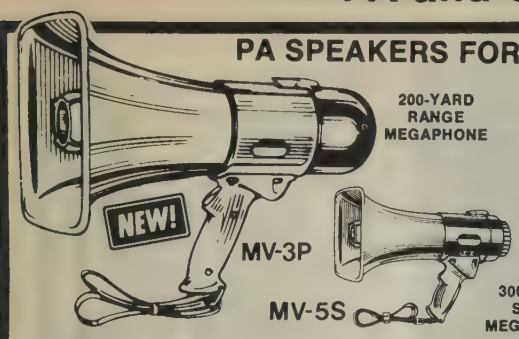
Uses include sound systems in industrial plants, airports, stadiums, schools and wherever undistorted power is required. With a variable frequency audio generator input, this booster amplifier represents a power source capable of driving servos, motors, vibration tables, ultrasonic equipment. Frequency Response: 8-50,000 Hz, 2 dB. Power Output: 200 watts rms. Output Impedance: 16 ohms, balanced 25 volts, 70 volts, 115 volts. Hi-impedance; Lo-Z with optional TL600 transformer. For 105/125 VAC, 50/60 Hz. Size 16x11½x6". Shpg. wt. 65 lbs.
733-0015. 1-3.....Each 214.95 4-Up.....Each 193.05

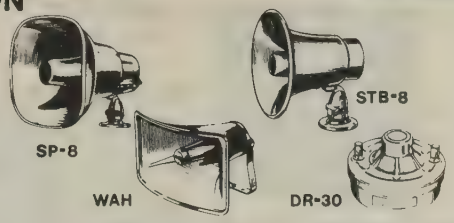
ALLIED ELECTRONICS HAS A WIDE SELECTION OF PUBLIC ADDRESS EQUIPMENT TO MEET EVERY AUDIO REQUIREMENT—FOR SCHOOLS, STADIUMS, HALLS AND INDUSTRIAL / COMMERCIAL APPLICATIONS. MAKE ALLIED YOUR HEADQUARTERS FOR EVERYTHING IN PA EQUIPMENT.

Write, Wire or Phone Allied Electronics for Larger Quantity Prices

PA and Communication Equipment

PA SPEAKERS FOR EVERY APPLICATION



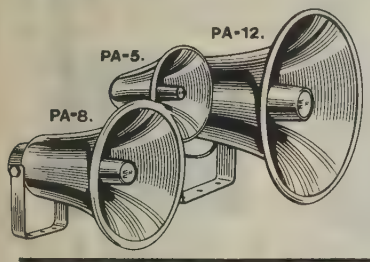


BATTERY-OPERATED SOLID-STATE MEGAPHONES

Model MV-3P. For indoor and/or outdoor use. Pistol-grip trigger slide switch for high or low power. Range more than 200 yards. 1.5 W (3 W peak). Flared bell provides projection and reinforcement. Transistorized circuit. Weatherproof aluminum construction. Built-in dynamic microphone. Carrying strap. 8¾ x 13". Uses 4 "D" batteries. 4 lbs.
790-0003. 1-4 ..... Each 55.03 5-Up ..... Each 50.75

Model MV-5S. 5 W (6 W peak). Range more than 300 yards. Built-in siren; waterproof dynamic microphone (noise-cancelling); pistol-grip trigger switch. Flared bell gives excellent projection and reinforcement. High-impact plastic housing. Push-pull Class B circuit. Volume control. Carrying strap. 7¼ x 13". Uses 4 "D" batteries. 4 lbs.
790-0004. 1-4 ..... Each 83.41 5-Up ..... Each 76.95

Model MV-9S. Self-contained battery-powered portable megaphone sound system. Ideal for police, fire, civil defense, industrial, recreational and crowd control applications. Just touch the pistol-grip trigger switch for powerful voice projection—carries up to 600-yard range. Built-in siren signal. Push-pull Class B 5-transistor amplifier provides rated output of 8 watts (10 watt peak power). Volume control compensates for loss of battery power. Lightweight aluminum; durable baked enamel weatherproof finish. Built-in hi-efficiency dynamic microphone. Carrying strap. 7x 14" long; 9" bell diam. Uses "C" batteries. Shpg. wt. 5 lbs.
790-0008. 1-4 ..... Ea. 86.75 5-Up ..... Ea. 79.95



MULTI-PURPOSE WEATHERIZED POWERHORNS

Designed and constructed to bring you full sound and clarity in any situation. Works effectively and clearly in any atmospheric condition all year round. Shock and rust resistant.

Model PA-5. 15-W 5". 200-13,000 Hz resp. 12 W peak. 8 ohms. 1 lb.
910-7097. Type 40-1237 ..... **Each 19.95**

Model PA-8. 15-W 8". 200-13,000 Hz resp. 25 W peak. 8 ohms. 5½ lbs.
910-7098. Type 40-1237 ..... **Each 29.95**

Model PA-12. 30-W 12". 150-13,000 Hz resp. 65 W peak. 8 ohms. 7 lbs.
910-7099. Type 40-1238 ..... **Each 34.95**

MODERATE POWER OMNI-PURPOSE PA SPEAKERS. Sealed, all metal construction. 30 watt driver. Adj. mntg. bracket. Varnish impregnated transformer. Screw terminal connections.

Model SP-8. For medium power applications. 30 watts rms, 40 watts equalized. Bell clear tone. Response: 225-14,000 Hz. Sound Level: 125 dB. Dispersion: 100°. Impedance: 8 ohms. Size: 10 x 9½ x 10½". Shpg. wt: 6 lbs.
733-0425 ..... Each 37.07 4-Up ..... Each 33.30

Model SPT. Same as above but with adjustable Vari-Tap switch for 2500, 1300, 666, 333, 167, 89 or 45 ohm impedance. Full power on 70V, 15 or 30 watts; 25V, 1.8, 3.7, 7.5 or 15 watts. Shpg. wt: 6 lbs.
733-0427 ..... Each 47.92 4-Up ..... Each 43.05

MODEL STB-8 SOUND PAGING AND TALK BACK SPEAKER. Offers 3 times the sound level of small cone type speakers at given power output. Doubles as microphone for talkback. Sealed driver with additional weatherproof housing. Metal parts chemically corrosion proofed, then finished with high temperature baked enamel. Completely adjustable mounting bracket. Aluminum horn construction. Power: 7.5 watts. Response: 350-13,000 Hz. Sound Level: 115 dB. Dispersion: 120°. Impedance: 8 ohms. Size: 7½" diameter by 7¼". Shpg. weight: 3½ lbs.
733-0418 ..... Each 28.39 4-Up ..... Each 25.50

MODEL WAH WIDE-ANGLE PROJECTOR. All purpose, high efficiency exponential reflex horn for use with any 1¾"-18 thread high compression driver. May be rotated horizontally and vertically or stacked for multi-speaker cluster. Low Frequency Cutoff: 115 Hz. Dispersion: 120° x 60°. Non-resonant, weatherproof fiberglass bell. Air Column Length: 4½". Size: 23"w x 13"h x 17"l. Shpg. wt: 13½ lbs.
733-0430 ..... Each 53.10 4-Up ..... Each 46.60

Model DR-30. 30 watts continuous, 50 watts equalized. Response: 85-700 Hz. Sound Level: 128 dB. Impedance: 16 ohms. Shpg. wt: 4 lbs.
733-0440 ..... Each 29.65 4-Up ..... Each 26.65

MIKE ADAPTORS, FITTINGS FLOOR STANDS, SPEAKERS AND ACCESSORIES

AD-7B. 3" long tube, ⅝"-27 male each end.
730-0007 ..... Each 1.80 4-Up ..... Each 1.10

AD-8B. 6" long tube, ⅝"-27 male each end.
730-0008 ..... Each 1.80 4-Up ..... Each 1.10

AD-11B. Flange, ⅝"-27 female. Base dia. 1¾".
730-0011 ..... Each 1.80 4-Up ..... Each 1.10

AD-12B. Flange, ⅝"-27 male. Base holds on 1¼" mtg. cen.
730-0012 ..... Each 2.10 4-Up ..... Each 1.25

AP-15T. 15 Watts Speaker with 70 V line transformer.
730-0101 ..... Each 82.65 4-Up ..... Each 49.60

DS-7. Adjustable Desk Stand. 8" to 13". 6" dia.
730-0307 ..... Each 10.70 4-Up ..... Each 6.40

DS-14. Contemporary Stand. 3" high tube.
730-0314 ..... Each 8.05 4-Up ..... Each 4.85

GN-13. 13" flexible Gooseneck. ⅝"-27 male and fem. thd.
730-0413 ..... Each 5.15 4-Up ..... Each 3.10

GN-19. 19" flexible Gooseneck. ⅝"-27 male and fem. thd.
730-0419 ..... Each 7.20 4-Up ..... Each 4.30

SO-1. Quick fastening/disconnect of microphone holder.
730-0451 ..... Each 5.95 4-Up ..... Each 3.55

MS-4. Sectioned tube, grip-action clutches. 25"-65".
730-0504 ..... Each 29.45 4-Up ..... Each 17.65

MS-25. Floor Std. 38"-67". 1⅛" dia. tube, ⅝"-27 thd.
730-0525 ..... Each 54.15 4-Up ..... Each 32.50

AP-15. 15 Watts speaker, moderate power 8 ohms.
730-0013 ..... Each 47.10 4-Up ..... Each 28.20

SC-15. 15 Watts reflex speaker. In 8 ohms.
730-0426 ..... Each 35.85 4-Up ..... Each 21.50

CO-1. Fits ⅝"-27 microphone on ⅝" or ⅞" dia. tube.
730-0554 ..... Each 8.05 4-Up ..... Each 4.85

TM-1. Hor. mtg. of two or three microphones. ⅝"-27 thd.
730-0556 ..... Each 11.65 4-Up ..... Each 7.00

APC-30T. 120° hor. and 60° vert. dispersion. 30 W 70 V transf
730-0110 ..... Each 82.65 4-Up ..... Each 49.60

PORTABLE PA SOUND SYSTEM

10 Watts—600 Yard Range

- **Range of 600 Yards**
- **Separate Input for Music Source**
- **Microphone Has Talk Switch & Coil Cord**

Model MVS-10. Versatile, compact portable PA sound system has separate input for music source. Voice and music can be amplified simultaneously. Lightweight system includes dynamic microphone with talk switch and coil cord, mike storage compartment, volume control, shoulder carrying strap. Reliable solid-state amplifier is rated 6 watts (10 watts peak). Ideal for use on guided tours, lectures, dances, political rallies and spot announcements. Has range of 600 yards (subject to environment and ambient noise level). Requires six "C" batteries (not included). 10⅜ x 7½ x 3½". Shpg. wt. 5 lbs.
790-0010. 1-4 Ea. 113.47 5-Up Ea. 104.50

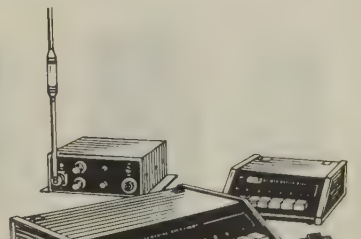
RADIO POCKET PAGING SYSTEM — FOR SIMPLE, PRIVATE COMMUNICATIONS

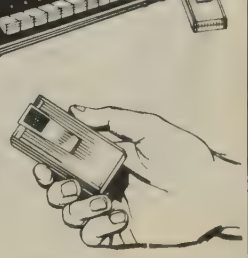
- **Signals Select Personnel Up to a Half Mile from Central Location**
- **Compact Receivers Fit in Pocket or Can be Clipped to Belt**
- **Selector Console Can be Used with Up to 20 Pocket Paging Units**

Provides simple, radio controlled communications to selected personnel within your building, or up to half a mile away from a central location. Personnel to be contacted simply keep a compact receiver in their pocket or clipped to belt. When anyone needs to be contacted, the switchboard operator presses a specified button on the central selector console, and a beep signal is emitted by the individual's receiver until it is turned off. Paging system is easy to install, easy to operate.

COMPONENTS: **Model TR-20** 5-watt crystal controlled transmitter uses Class C Citizens Band signal on a 27.255 MHz frequency. For 117 VAC. Supplied with screw-in antenna. **Model EN-20** Selector Console offers a capacity of up to 20 pocket paging units; finished in black with walnut wood grain end panels. Each **Model PG101R** Pocket Paging Receiver is constructed of lightweight, high-impact tan styrene plastic; only 3½ x 1¾ x ¾"; weighs just 2 ounces. Has distinctive "beep" signal and reset switch, convenient pocket clip, on-off switch. Built-in operation-battery tester. Powered by two mercury batteries that provide up to 500 hours of life.

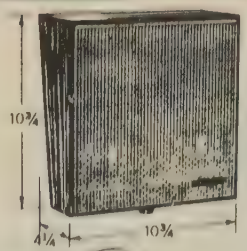
Stock No.	Model No.	Description	Dimensions, H x W x D	EACH
790-2000	TR-20	Radio Transmitter	2¾ x 8¾ x 7"	211.70
790-2010	EN-20	Selector Console	2¾ x 6¾ x 8¾"	163.50
790-2020	PG-101R	Paging Receiver	3½ x 1¾ x ¾"	100.00





Lightweight Receiver is Smaller Than a Pack of Cigarettes!

Public Address and Replacement Speakers



REALISTIC 8" SPEAKER & BAFFLE

Perfect PA Speaker or Extension Speaker

12.95

High-quality 8" speaker, attractively mounted in a sleek walnut-finished wall mounting baffle. An economical solution to reproduction of speech or music in offices, clubs, at demonstrations and public affairs. Delivers good sound reproduction without the bother of a separate speaker installation. Completely assembled, including a pre-wired L-pad volume control. Wt. 4 lbs.

910-7111. Type 40-219 ..... **Each 12.95**

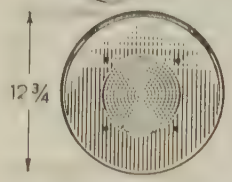
REALISTIC 8" SPEAKER SPECIAL

Excellent General-Purpose Speaker

5.99

Super-value 8" replacement speaker offers good bass response and fine highs. Has 6-ounce ceramic magnet. Perfect for TV, phono or console use. Impedance 8 ohms. An excellent general-purpose replacement speaker by Realistic, at an extra-ordinary low price. Wt. 3 lbs.

910-7109. Type 40-1272 ..... **Each 5.99**



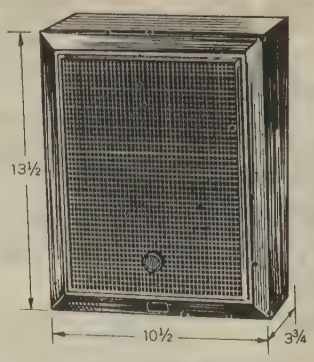
FLUSH-MOUNT SPEAKER BAFFLE

- Aluminum Finish
- Takes 8" Speaker

3.99

Aluminum baffle for mounting 8" speaker in wall or ceiling. Aluminum finish gives a smart, functional appearance. Easy to install — for offices, schools, etc. Speaker not included. Wt. 1 lb.

910-7110. Type 40-1223 ..... **Each 3.99**



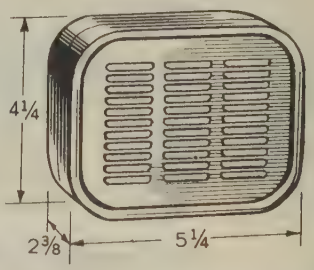
DELUXE WALL BAFFLE SPEAKER

- Acoustic Suspension
- 40-15,000 Hz
- Walnut Wood

31.95

Full-range 5" speaker looks as good as it sounds. Makes an ideal extension speaker for use anywhere in the home, office, factory or shop. Acoustic suspension system assures excellent sound reproduction of both voice and music, with frequency response of 40-15,000 Hz. Convenient up-front volume control for easy adjustments. RCA-type or screw terminal inputs. Impedance, 8 ohms. Walnut-wood enclosure with grille cloth. 13½x10½x3¾". Order two for stereo! Shpg. wt. 7 lbs.

910-7095. Type 40-220 ..... **Each 31.95**



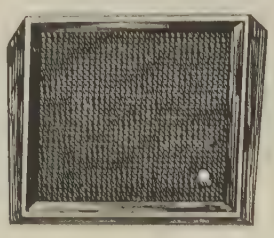
MOISTUREPROOF INDOOR/OUTDOOR SPEAKER

- Listen Anywhere — Car, Garage, Office, Shop, Loading Area

7.99

Portable 4" speaker has a heavy-duty Alnico V magnet for excellent sound reproduction. Durable lacquer-finish steel case with key-hole slots for easy mounting. Screw terminals. Completely moistureproof construction. Designed for easy installation. 4¼x5¼x2⅜". Order two for stereo! Shpg. wt. 1½ lbs.

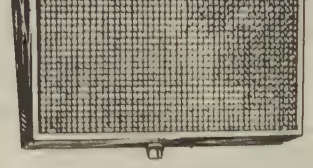
910-7090. Type 40-1229 ..... **Each 7.99**



DELUXE BAFFLE WITH 8" SPEAKER, CONTROL, 70.7-V TRANSFORMER

Type 1206. Excellent where quality background sound is essential. Styrene baffle has fine-furniture finish. 8" speaker, with ceramic magnet, has factory wired L-pad volume control. 70.7 volt transformer has screw terminal taps for 10, 5, 2.5, 1.25 and .62 watts. 10⅜x13x6". Wt. 5 lbs.

973-1206. 1-4 ..... **Each 19.07**
5-Up ..... **Each 17.47**



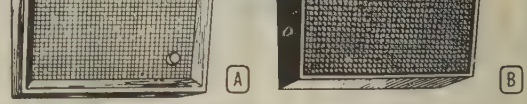
EXTRA-THIN BAFFLE WITH 8" SPEAKER

- Baffle Only 4" Deep

Smart, modern styling in a sloping baffle that's only 4" deep. Features 8" dia. shallow speaker with internal dust shield, bonded magnet structure and barium ferrite magnet for more sound per watt. Ideal for use in classroom, offices, reception rooms and many other background music and paging system applications. Impedance, 8 ohms. Size, 9x12x4".

Available as baffle-speaker unit, with tapped transformer and L-pad volume control for adjustments right at the speaker. Screw terminal for fast installation. Supplied with all hardware for easy mounting. "T" suffix in Mfr's type indicates baffle-speaker with transformer, tapped at 5, 2.5, 1.25, 0.62 and 0.31 watts. "V" suffix with volume control. Ideal for uses in numerous military, hospital, commercial, educational, industrial and business applications. Goes with any modern decor or surroundings.

Stock No.	Mfr's Type	Enclosure Finish	Wt., Lbs.	EACH 1-4	EACH 5-Up
973X1135	TP8A-VT	Walnut-Finished Wood	4	25.78	21.35



A BAFFLE—8" SPEAKER, 70.7 V TRANSFORMER

Type U8A-3W. Speaker, transformer and L-pad volume control are already connected to screw terminals. No soldering — all you need is a screwdriver. Transformer taps for 2, 1 and 0.5 watts. Speaker has powerful Alnico V magnet. L-pad maintains a constant impedance on the line. Walnut grain is molded into the styrene baffle, color goes all the way through. 10¾x13x6".

973X1305. 3¼ lbs. **1-4** ..... **Each 16.53** **5-Up** ..... **Each 13.75**

A LOW-COST BAFFLE WITH 8" SPEAKER

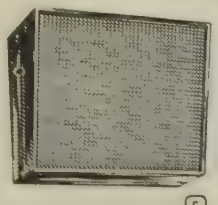
Type U8B-3W. The same value priced assembly as above, but without the 70.7 volt transformer. 8" speaker easily handles 14 watts of peak power for excellent voice or music reproduction. Speaker is factory wired to handy screw terminals for quick hook-up with no soldering required. Impedance, 8 ohms. 3 lbs.

973X1306. 1-4 ..... **Each 13.74** **5-Up** ..... **Each 12.59**

B "SLOPING" BAFFLE—8" PREWIRED SPEAKER

Type A-124896. Nine-watt, 8-ohm speaker has 1.45 oz. Alnico V magnet. Screw terminals. Bonded corners. Recessed front. For use in average offices, classroom, reception room, hospital rooms. Hardware-size included in a coin envelope, for fast, easy mounting. 9x11x6". Wood-grain fabric. Walnut-finish enclosures.

973X1001. 4 lbs. **1-4** ..... **Each 17.58** **5-Up** ..... **Each 16.10**



C HEAVY-DUTY SOUND COLUMN. Model SND-3. Heavy-duty sound column with six 8" speakers for 72-watt power capability. Mounting bracket. Response: 50-15,000 Hz. 120° horizontal dispersion, 30° vertical dispersion. 8 ohms. 51 x 11 x 7¾". Excellent sound distribution qualities that are useful in commercial, educational and industrial applications. Shpg. wt. 50 lbs.

973-1110. 1-4 ..... **Each 115.79** **5-Up** ..... **Each 106.09**

D COMPACT 2-WAY ACOUSTIC SUSPENSION SYSTEM. Type AS-2AX. Features an 8" high compliance woofer, sensitive 3½" direct radiator tweeter with an Alnico V magnet. Frequency response: 45-17,500 Hz. Power capacity: 12 watts program, 24 watts peak. Electrical crossover at 5 kHz. Impedance: 8 ohms. Airtight, walnut veneer cabinet measures 11¼ x 17¼ x 8¼". Wt. 20 lbs

973-1400. 1-4 ..... **Each 33.40** **5-Up** ..... **Each 31.51**

E MODERN STYLED WALL BAFFLE. 8" Flat Wall SPKR. Trim, recessed front design. Acoustically correct particle board construction of frames and front panel. Hardware incl. 7¼x8¼x4¼". Wt. 1 lb.

973-1102. 1-4 ..... **Each 12.32** **5-Up** ..... **Each 8.25**

F BAFFLE WITH 8" SPEAKER. 8" Straight Corner SPKR. Thin profile 8 ohm speaker mounted in walnut-finished enclosure. Ideal for background music or paging. Hardware incl. 9 x 11 x 6". Wt. 2¾ lbs

973-1103. 1-4 ..... **Each 12.89** **5-Up** ..... **Each 11.81**

WEATHERPROOF SPEAKERS

- For Outdoor Installations
- Moisture-Resistant

G MOD-4 PATIO SPEAKER. Alnico V magnet 4" speaker. Screw terminals. Steel case. Baked on finish. 8 ohms. 4½ watts. 4 15/16 x 5 5/16 x 2 3/8". Wt. 1¼ lbs.

973-1049. 1-4 ..... **Each 11.15** **5-Up** ..... **Each 8.92**

H MOD-8 PATIO SPEAKER. 8" speaker in steel cabinet. Volume control. Slots for easy mounting. Connect attached 25-ft. cable to hi-fi, radio or TV. Response: 40-15,000 Hz. 20 watts peak. 8 ohms. 10⅞x10⅞x5⅛". 6¼ lbs.

973-1048. 1-4 ..... **Each 15.45** **5-Up** ..... **Each 14.15**

J HFOD-8 HI-FI PORTABLE PATIO SPEAKER. 8" speaker in steel case. Volume control. Carry by handle or mount with screws. 35-19,000 Hz. 30 watts peak. 8 ohms. 25-ft. cable. 10⅛x10⅞x5⅛". 6¼ lbs.

973-1030. 1-4 ..... **Each 18.87** **5-Up** ..... **Each 17.28**

K U8B-W SPEAKER. 8" speaker in walnut-finish styrene case. Mounts on wall. 15 watts peak. 8 ohms. Has 70-V transformer with 5, 2.5, 1.25, .62, .31 watt taps. L-pad control. 10⅜ x 13 x 6". Shpg. wt. 3 lbs.

973-1190. 1-4 ..... **Each 15.73** **5-Up** ..... **Each 14.41**

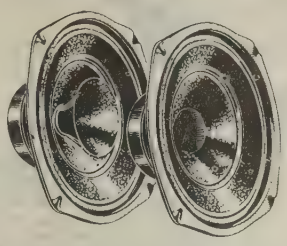
AUDIO EQUIPMENT

REALISTIC REPLACEMENT OR EXTENSION SPEAKERS

High-quality American-made speakers put your music system, home radio, PA system or auto radio in top form. Rigid frame construction to maintain proper voice coil and magnet alignment. Powerful Alnico V magnets assure high sensitivity for efficiency approaching that of much costlier speakers. Buy in quantity and save — discounts as shown below.

Stock No.	Mfr's. Type	Size	Watts	Ohms	Wt. Lbs.	EACH 1-5	6-11	12-49	50-Up
910-0030	40-1201	3″	3	3-4	¼	3.49			
910-0032	40-1203	4″	3	3-4	¼	3.29			
910-0033	40-1204	4″	4.5	3-4	¼	3.59	10% Off 1st Col. Price	15% Off 1st Col. Price	25% Off 1st Col. Price
910-0035	40-1206	5″	5	3-4	¾	3.99			
910-0036	40-1207	6″	5	3-4	1¼	4.39			
910-0037	40-1209	5x3″	4	3-4	½	3.59			
910-0041	40-1213	8″	8	3-4	2	5.29			
910-0042	40-1905	6″	6	10/20/40	1¾	4.79			

NEW LOW PRICE ON ALLIED 8″ SPEAKERS FOR PA AND REPLACEMENT USE

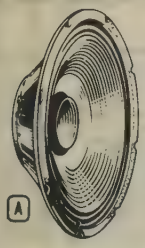


Built-right and priced-right 8″ general-purpose speakers. Fine for music and paging systems, as well as many production line applications. All have high sensitivity for greater overall efficiency. Epoxy is used between plates and magnets — cured with RF heat for an indestructible bond. Shallow profile for easy in-wall mounting. Powerful barium-ferrite magnets with 1″ diameter voice coils. Integral mounting facilities for transformers with 1¾″, 2″ and 2¾″ centers. Internal dust seals protect critical close-tolerance voice coil gaps. Model 803W has separate high-frequency (whizzer) cone for higher treble response. 8 ohms. Mtg. dia., 7⅛″. Made in U.S.A. — available only from Allied.

Stock No.	Mfr's Type	Magnet Oz.	Peak Watts	Response in Hz	Mtg. Depth	Wt., Lbs.	EACH 1-24	25-Up
973-1420	800	6	22	42-16,000	2¾″	2½	4.29	3.99
973-1424	803W	10	30	38-18,000	3″	2¾	4.99	4.49

REPLACEMENT HI-FI SPEAKERS

Crisp, clean sound at low cost. Designed and made in U.S.A.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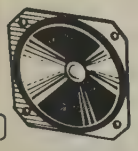
B

C

A MODEL 40-1200 12″ FULL-RANGE SPEAKER. Has internal dust seal that protects precision voice coil. Handles 30 watts power. Dependable ceramic-magnet construction. Features high-efficiency design with 50-11,000 Hz frequency response. Impedance, 8 ohms. Shpg. wt. 4½ lbs.
910-0021 .....**Each 8.49**

B MODEL 40-1230 12″ 3-WAY COAXIAL SPEAKER. Horn-shaped tweeter is coaxially mounted with prewired capacitive crossover. Midrange cone is coaxially mounted to woofer cone with mechanical crossover. Handles 16 watts power, 30 watts peak. Response, 35-17,000 Hz. Impedance, 8 ohms. Shpg. wt. 4 lbs.
910-0027 .....**Each 14.95**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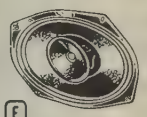
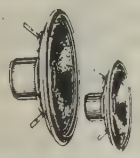

E

C MODEL 40-1226 8″ ROUND COAXIAL SPEAKER. Compact speaker is only 2¾″ deep—great for in-wall mounting. Has prewired 3″ tweeter and crossover. 3-oz. ceramic magnet. Handles 10 watts power. Response, 50-17,000 Hz. Impedance, 8 ohms. Baked-on lacquer finish. Shpg. wt. 1¾ lbs.
910-0028 .....**Each 9.95**

D MODEL 40-1224 3½″ SQUARE TWEETER. Specially designed basket has sealed back to protect cone against woofer back pressure. Electronic crossover (non-polarized capacitor at 4500 Hz) for smooth frequency distribution. Frequency response, 2000-16,000 Hz. 10 watts power; 8 ohms. Wt. ¾ lb.
910-0029 .....**Each 4.79**

E MODEL 40-1231 6x9″ COAXIAL SPEAKER. Delivers big wide-range sound. Features separate coaxially mounted 3″ tweeter. Ceramic magnet structure gives sharp, clear reproduction of voice or music. Power capacity, 8 watts. Frequency response, 40-15,000 Hz. Impedance, 8 ohms. Wt. 1½ lbs.
910-0026 .....**Each 10.59**

MINIATURE 8-OHM RADIO SPEAKERS



1.59

4 Sizes

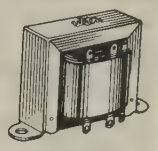
For Transistor Radios, Tape Recorders, Walkie-Talkies

Alnico PM replacement speakers with very thin profiles to fit the tightest spaces possible. Exact replacements for most transistor radios, walkie-talkies and tape recorders. Also suitable for all types of electronic construction projects. Shpg. wt. ½ lb.

Stock No.	Type	Size	EACH
910-0114	40-262	2¾″	1.59
910-0115	40-247	2½″	1.59
910-0116	40-246	2¼″	1.59
910-0117	40-245	2″	1.59

PUBLIC ADDRESS SPEAKERS, TRANSFORMERS

F


G

F Professional Quality PA Speakers. Ceramic magnet assemblies are permanently bonded with RF cured epoxy. Screw terminals. 8-ohm impedance. SP Series, 45 ohms. Number in Mfr's Type indicates speaker dia. Suffix W dual cone design. *Square style.

Stock No.	Mfr's Type	Watts	Mag. Oz.	Depth Mtg.	Wt., Lbs.	EACH 1-4	5-9	10-Up
973-1115	SP3.5A!*	4	.68	1⅞″	¾	5.05	4.04	3.37
973-1050	PA8ECS	8	3.0	1⅞″	1½	9.52	7.62	6.36
973-1052	PA8FC	10	5.5	2¾″	1¾	9.42	7.54	6.30
973-1053	PA8FC-W	10	5.5	2¾″	1¾	9.60	7.68	6.41
973-1065	PA8JC-W	15	10.3	3″	2¾	12.05	9.64	8.05

G Low Cost Line-to-Voice Coil Transformers. Just select desired power (volume) level by changing transformer taps. Solder terminals. For 4, 8, or 16 ohm speakers. Mounting centers: *2″ centers; †2⅜ centers. Wt. 1 lb.

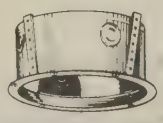
Stock No.	Mfr's Type	Watt Taps	Line Volts	Imp. Ohms	EACH 1-11	12-Up
973-1012	CV705	5, 2.5, 1.25, .62, .31	70.7*	8, 4	4.55	3.64
973-1015	CV7010	10, 5, 2.5, 1.25, .62	70.7*	16, 8, 4	5.17	4.14
973-1016	CV7018	18, 9, 4.5, 2.25, 1.12	70.7†	16, 8, 4	6.77	5.42
973-1010	CV255	5, 2.5, 1.25, .62, .31	25*	8, 4	4.80	3.84

CEILING AND WALL BAFFLE ACCESSORIES

H

J

K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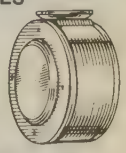

M

H 5-PACK TRIM RINGS
Model M8RA-5. For 8″ speaker. 12″ diam. Aluminum. Mounts flush w/ceiling. 3¾ lbs.
973-1036 .....**Package of 5 for 15.95**

H ROUND TRIM RINGS
Model M8RA. Aluminum. Mounts flush. For 8″ speaker. Diameter 12¾″. Use with baffle E8R. Less speaker. ¾ lb.
973-1035. 1-5 ..... **Each 5.57** **6-Up** ..... **Each 4.87**
Model M8RW. As above but made of white steel. Can be repainted to match ceiling. Less speaker. Wt. 1½ lbs.
973-1040. 1-5 ..... **Each 5.57** **6-Up** ..... **Each 4.87**

ASSEMBLIES WITH J SPEAKERS & TRANSFORMERS
Model 70-8EC-A. Ready to mount. 8″ speaker. 18 watts, 8 ohms. 70-volt transformer. Uses type M8RA grille. 2 lbs.
973-1270. 1-5 .... **Each 14.35** **6-Up** .... **Each 12.91**
Model 70-8EC-W. As above but with M8RW style grille (above). Wt. 2 lbs.
973-1272. 1-5 .... **Each 14.35** **6-Up** .... **each 12.91**

K ROUND LOUVERED BAFFLE
Model M8RL. Brushed aluminum. Recessed louvers. Takes 8″ speaker. Fits E8R enclosure. Less speaker. 2 lbs.
973-1037. 1-5 .... **Each 10.85** **6-Up** ..... **Each 9.75**

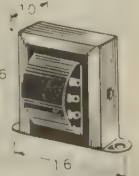
ROUND LOUVERED BAFFLE K WITH SPEAKER & TRANSFORMER
Model M8RL-ST. Pre-assembled. 12″ diam. brushed aluminum louvered baffle. 8″ speaker. 18 watts. 70 V transformer. 2 lbs.
973-1038. 1-5 .... **Each 14.56** **6-Up** .... **Each 13.07**

L ROUND BACK BOX
Model E8R. Undercoated to prevent rust. Jute pads plus sound-deadening compound. 11″ overall diam. x 4½″ deep. Fits M8RA, M8RW and M8RL. Wt. 2½ lbs.
973-1028. 1-5 .... **Each 10.15** **6-Up** ..... **Each 9.50**

M BI-DIRECTIONAL BAFFLE
Model M8BD. Mounts on any flat surface or outlet box. Fits 8″ speakers up to 4½″ deep. 10″x5½″. Sound radiates from front and back. Brushed aluminum finish. 2¼ lbs.
973-1033. 1-5 .... **Each 13.53** **6-Up** .... **Each 11.14**

M ABOVE WITH ALL-WEATHER SPEAKER
Model M8BD-SW. As above but pre-wired for convenience. 8″ speaker designed for outdoor use. 30 watt peak. Color-coded leads. Shpg. wt. 4 lbs.
973-1034. 1-5 .... **Each 20.40** **6-Up** .... **Each 16.35**

REALISTIC 70-VOLT LINE TRANSFORMER



10-watt primary. Taps at 10, 5, 2.5, 1.25 and .62 watts. Secondary impedance, 4 or 8 ohms. For driving speakers at various power levels from the same 70-volt line. Simply change the transformer taps to achieve the power level you desire. Size: 1.6x1.6x1.0″
Shpg. wt. 1½ lbs.
910-0013. Type 32-1031
Each **3.89**

19

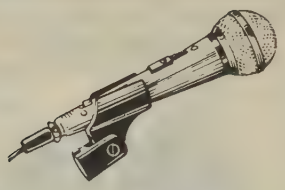
Microphones and Accessories

29.95

REALISTIC TRUE HI-FI MIKE

MODEL 33-1044 OMNIDIRECTIONAL CONDENSER MICROPHONE. Excellent frequency response, transient response and sensitivity. 30-15,000 Hz freq. response, foil diaphragm and "pop" filter. Impedance, 600 ohms (usable with inputs up to 20,000 ohms). Powered by "AA" battery. Desk and floor stand adapter included.
910-8000. Shpg. wt. 5 lbs. ...**Each 29.95**

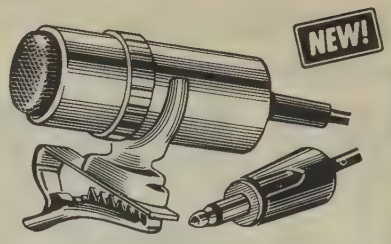
MODEL 33-1045 CARDIOID CONDENSER MIKE. Same as above, but with unidirectional sound pickup.
910-8001. Shpg. wt. 5 lbs. ...**Each 39.95**



39.95

REALISTIC "HIGHBALL" DYNAMIC CARDIOID MIKE

TYPE 33-983. Deluxe professional mike features smooth wire screen that eliminates troublesome wind and breath noises while cutting "popping" and "booming." Also suppresses feedback, reduces echo. Response, 50-15,000 Hz. Has On-Off switch. Impedance, 50-250, 50,000 ohms. Cannon body connector. Includes 15-ft. cable with universal plugs, screw-in ¼" phone plug adapter; MCIF Amphenol plug. Made in U.S.A.
910-0016. Wt. 5 lbs. .....**Each 39.95**



19.95

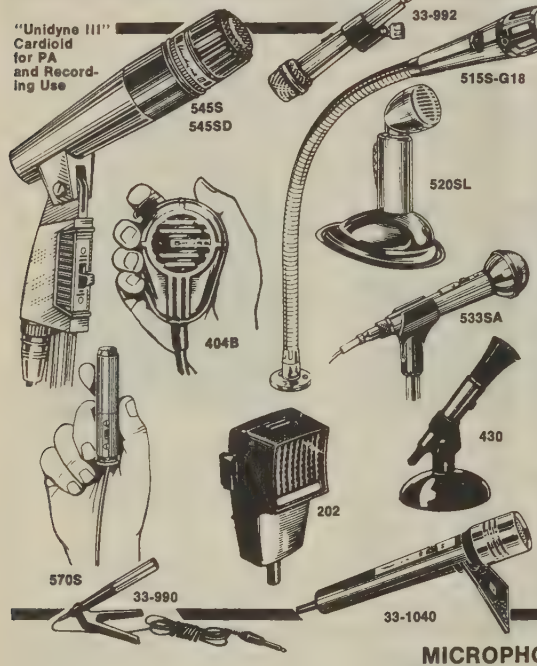
OMNIDIRECTIONAL TIE-CLIP ELECTRET CONDENSER

MODEL 33-1051 OMNIDIRECTIONAL TIE-CLIP ELECTRET CONDENSER. High-quality electret condenser is compact enough to fit almost anywhere. Inconspicuous as a lavalier microphone. Frequency response: 50-13,000 Hz. Impedance: 600 ohms. Comes equipped with miniature plug and battery. Size ⅝"x1½".
910-8051 .....**Each 19.95**

19.95

APOLLO FM-91 WIRELESS MIKE

MODEL 33-1048. Wireless microphone broadcasts through any FM radio up to 90 feet away — without wires or special hookup. Perfect on the stage, in home or factory, as a portable paging system. Operates on 88-92MHz using a battery operated all-silicon-transistor circuit. Two-way stand for desk or stand mounting. Tuning control. 9-volt battery. 7⅝x1¼x1⅛".
910-8003. Shpg. wt. 3 lbs. ....**Each 19.95**



GENERAL-PURPOSE MICROPHONES

Models 545S and 545SD. "Unidyne III" Dynamic Mikes. Cardioid pickup pattern. Dynamic element with 50-15,000 Hz response. Impedance: 150 ohms or Hi-Z. Output: Low-Z, —57 dB; hi-Z, —55 dB. **Model 545S** mounted on swivel with on-off switch. Detachable 15-ft. 3-cond. shielded cable with male 4-pin connectors. **Model 545SD** has reed-type on-off switch built into case, with built-in locking plate. Solderless impedance change. Detachable 15-ft. 2-cond. shielded cable with female 3-pin connector; swivel adapter. Chrome and black finish. Size: 1¼" dia. x 6⅜" long. Wt. 1 lb.
944-0546. Model 545S ....**Each 68.53** **5-Up**....**Each 61.69**
944-4615. Model 545SD....**Each 68.53** **5-Up**....**Each 61.69**

Model 515SB-G18. "Unidyne B" Microphone. Low impedance cardioid. On-off non-lock switch controls mike and relay or control circuit. Cartridge shock mounted. For mounting on gooseneck with ⅝"-27 thread (incl.). Response: 80-13,000 Hz. —59 dB. Chrome. 51" cable. 1½" dia. x 6¼". Wt. 15 oz.
944-0536.....**Each 35.77** **5-Up**.....**Each 32.19**

Type 33-990 Realistic Pencil-Thin Microphone. For desk-stand or lavalier. Response: 100-10,000 Hz. Impedance: 10,000 ohms. With 6-ft. cable, ¼" phone plug. Wt. 1 lb.
910-0014 .....**Each 12.95**

Type 33-1040 Cassette Recorder Mike. Dynamic cardioid directional mike with switch to start or stop recorder remotely. Response: 100-11,000 Hz. Impedance: 1000 ohms. With desk stand, cable and start-stop plugs.
910-8007 .....**Each 11.95**

Type 33-992 Cardioid Dynamic Mike. General purpose; on-off switch. Wire mesh screen suppresses wind, breath. Impedance: 600 and 50,000 ohms. Response: 80-12,000 Hz. With slide-on mike stand adapter, 6-ft. cable, molded phone plug. chrome die-cast case. Wt. 3 lbs.
910-0019 .....**Each 24.95**

Model 430 Controlled Magnetic Mike. Omnidirectional, dual-impedance. Response: 60-10,000 Hz. Impedances: 150 to 250 ohms and high impedance. Output: —52 dB. Black and satin chrome finish. On-off switch and swivel adapter. 15-ft. 3-cond. cable. Less base. 6¾x1¾". 2¼ lbs.
944-0430.....**Each 30.60** **5-Up**.....**Each 25.80**

Model 520SL Microphone. Controlled-magnetic mike with grip-to-talk locking switch. Response: 100-9,000 Hz. Output: —52.5 dB. Chrome and green finish. With 7-ft. 2-cond. cable. 9⅜" high x 5" wide x 7" deep. Wt. 5 lbs.
944-0520.....**Each 36.80** **5-Up**.....**Each 30.60**

Model 533SA Dynamic Mike. High-impedance, with hand-to-stand feature. Built-in wind, breath, and "pop" filters. Locking on-off switch. Response: 40-11,000 Hz. High impedance output: —55 dB. Satin chrome finish. Includes detachable single-conductor shielded 15-ft. cable and swivel adapter. 2⅛" dia. x 6⅝" long. Wt. 1¾ lbs.
944-0533 .....**Each 41.00** **5-Up**.....**Each 34.20**

Model 202. Ceramic, noise-canceling mike, use where high noise levels may cause problems in clear voice transmission. Response: 200-4000 Hz. High impedance. Output: —50 dB. Press-to-talk switch and mounting bracket. 5-ft. coiled cable. 4" x 2¼" x 1⅝". Wt. 1 lb.
944-0202 .....**Each 16.10** **5-Up**.....**Each 13.80**

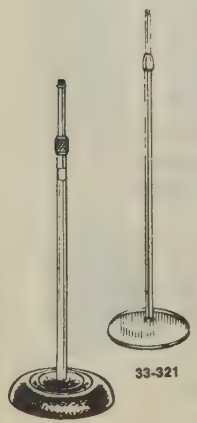
Model 404B. Controlled-magnetic press-to-talk mike. Response: 200-8,000 Hz. Impedance: 150-250 ohms. Output: —52 dB. Hand-held. Gray case. With mtg. bracket. 5½ ft. cord. 1 lb.
944-0405 .....**Each 28.40** **5-Up**.....**Each 23.90**
Model 404C. Same as above, but for high impedance. —54dB.
944-0406 .....**Each 27.25** **5-Up**.....**Each 22.80**

Model 570S. Lavalier Mike. Low clothing and cable noise pickup. Low impedance. Response: 50-12,000 Hz. Output: —60.5 dB. On-off switch. With 30-ft. 2-cond. cable. ¾" dia. x 4⅜" long. 1 lb. 1 oz.
944-4600 .....**Each 80.56** **5-Up**.....**Each 72.50**
Model 570. As above, but without on-off switch.
944-4601 .....**Each 76.56** **5-Up**.....**Each 68.50**

MICROPHONE FLOOR STANDS, DESK STANDS AND ACCESSORIES

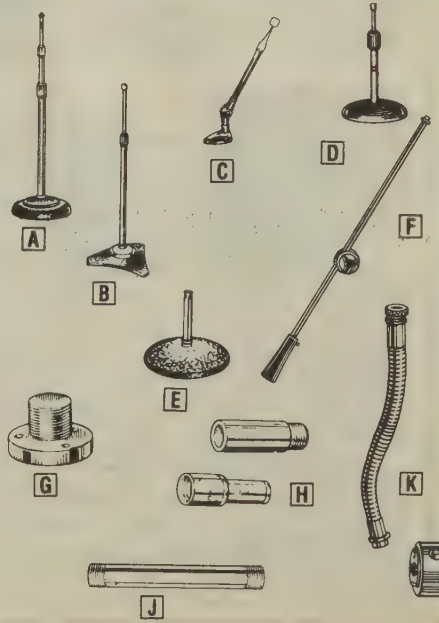
"SURE-GRIP" FLOOR STANDS

- **Extended-Length Clutch Body for Full-Hand Grip**
- **Self-Leveling Base Pads and "Anti-Tip" Points**



33-320. Gray cast base. Excellent for clubs, hotels, etc. Velvet-smooth "sure-grip" clutch adjusts from 35" to 63". Inner-lined with bakelite to prevent jamming, slipping. Two-section, chrome-plated tube. 10" dia. base with leveling shock absorber pads and anti-tip-over bumpers. Standard ⅝"-27 threads connect to most microphones.
910-0053. 10 lbs. ..**Ea. 13.95**

33-321. Chrome Base. Similar to above, but has all chromed finish. 34" to 63" clutch adjustment. ⅝"-27 threads.
910-0054. 13 lbs. ..**Ea. 15.95**



Ⓐ **MS-4 TELESCOPING FLOOR STAND.** Adjusts from 25" to 65". Three chromed sections, two clutches. 10" gray base. ⅝"-27 thd. 12 lbs.
720-0504. 1-4.....**Each 29.45** **5-Up**.....**Each 17.65**

Ⓑ **MS-25 PROFESSIONAL FLOOR STAND.** "Air Lock Cushion" controls drop of chrome tube. 38-67"; 17" base. ⅝"-17 thread. 22 lbs.
730-0525. 1-4.....**Each 54.15** **5-Up**.....**Each 32.50**

Ⓒ **US-2 MULTIPURPOSE MIKE SUPPORT.** Spring-loaded, floats vert. 180°, horiz. 360°. Chrome. 12¾" arm. 2⅝" base. ⅝"-27 thd. 3 lbs.
730-0552. 1-4.....**Each 17.65** **5-Up**.....**Each 10.60**

Ⓓ **DS-7 GENERAL PURPOSE DESK STAND WITH ADJUST.** "Velvet clutch." Iron base has gun metal shrivel finish; padded underside. Adjusts from 8" to 13". Base dia., 6"; tube ht., 4". Chrome finish. ⅝"-27 thread. 3 lbs.
730-0307. 1-4.....**Each 10.70** **5-Up**.....**Each 6.40**

Ⓔ **33-370 REALISTIC DESK STAND.** Iron, gun metal finish. ⅝"-27 thd. 9 lbs.
910-0132 .....**Each 5.49**

Ⓕ **33-344 REALISTIC BABY BOOM FLOOR STAND ATTACHMENT.** Attach to any standard mike floor stand. 31" long. ⅝"-27 thread. 8 lbs.
910-0131 .....**Each 9.95**

Ⓖ **MODEL AD12 MIKE BASE FLANGE.** Male. Standard ⅝"-27 thread. 6 oz.
730R0012. 1-4.....**Each 2.10** **5-Up**.....**Each 1.25**

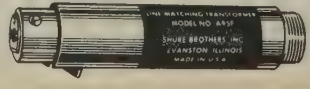
Ⓗ **MODEL SO1 SNAP-ON MIKE ATTACHMENT.** Standard ⅝"-27 thread. 1¼ lbs.
730-0451. 1-4.....**Each 5.95** **5-Up**.....**Each 3.55**

Ⓙ **MODEL AD8 6" EXTENSION ROD.** ⅝"-27 thread. 6 oz.
730-0008. 1-4.....**Each 1.80** **5-Up**.....**Each 1.10**

Ⓚ **33-330 REALISTIC FLEXIBLE 13" GOOSENECK.** Connects to standard mike; ends have ⅝"-27 thread. 8 oz.
910-0130 .....**Each 3.49**

LINE MATCHING TRANSFORMER

MODEL A95F. High-quality transformer make it feasible to run a microphone line from a low-impedance mike to a high-impedance amplifier. Matches microphone rated 50 or 150 ohms to high impedance inputs. Built into compact, sturdy, magnetically-shielded case; has female XL-3-12 type input and MCIM type output plugs installed. On-off switch. Wt. 10 oz.
944-4610..**Ea. 17.86** **5-Up**..**Ea. 16.07**



Components for Wireless PA Systems

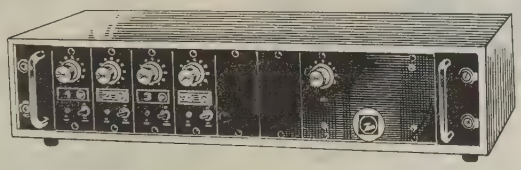
AUDIO EQUIPMENT

End the Inconvenience of Tangled Mike Cords, the Unsightly Array of Speaker Wires! Gain the Freedom of a Cordless FM Wireless Mike!

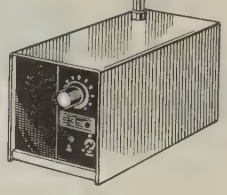
Buy a Whole New System – Or Convert Your Existing Set-Up!

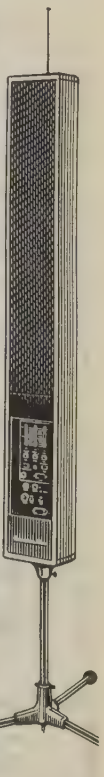
NEW!

Wireless Sound Systems consist of a cordless mike, tuner/amplifier and speaker. And that's it! Unless—you want to add extra speakers, a record or tape player or convert an existing wired PA system by adding a tuner. Everything is light and compact—just move the components where you need them. Choice of battery or AC operation. Never again will you be tied down by wires—this PA system surpasses ordinary systems and gives you real "freedom of speech!"



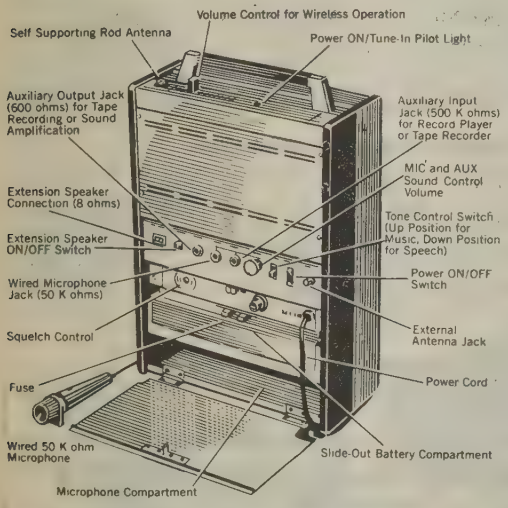
4-CHANNEL WIRELESS TUNER





4 Stacked Speakers For Instant Coverage of Over 2000 Persons

10-WATT TUNER/AMPLIFIER


Volume Control for Wireless Operation
Self Supporting Rod Antenna
Power ON/Tune-In Pilot Light
Auxiliary Output Jack (600 ohms) for Tape Recording or Sound Amplification
Auxiliary Input Jack (500 K ohms) for Record Player or Tape Recorder
MIC and AUX Sound Control Volume
Extension Speaker Connection (8 ohms)
Tone Control Switch (Up Position for Music, Down Position for Speech)
Extension Speaker ON/OFF Switch
Power ON/OFF Switch
Wired Microphone Jack (50 K ohms)
Squelch Control
External Antenna Jack
Fuse
Power Cord
Wired 50 K ohm Microphone
Slide-Out Battery Compartment
Microphone Compartment

MODEL WA-313 1-CHANNEL UNIT. Briefcase size, power enough for most inside or outside PA jobs, battery or AC operation. Features a very sensitive crystal-controlled tuner, full-response amplifier and speaker and automatic switching between AC and DC power. The latest FET/IC circuitry with ceramic filtering assures the best in PA performance. The squelch control maintains speaker silence when no signal is being received from a wireless mike. Dimensions: 16½ x 11½ x 5½". Operates on 120 VAC or 10 standard dry cell batteries (not incl.). Wt. 15 lbs.
650-2001 ..... Each 385.00

MODEL PA-111 WIRED UNIT. Similar to above, but for conventional wired mikes only.
650-3001 ..... Each 215.00

MODEL WA-320 2-CHANNEL UNIT. Same as the wireless Model WA-313 but has a dual-channel system for mixing and simultaneous use of two wireless mikes. Wt. 15 lbs.
650-2010 ..... Each 545.00

Combine the Units on This Page and You Have a Convenient Wireless Sound System that Virtually Surpasses All Others in Performance. Ordinary Systems are No Match for Its Excellent Sound Reproduction and Versatility. Change Your Old Sound System to a Wireless and Find Out for Yourself How Convenient It Really Can Be!

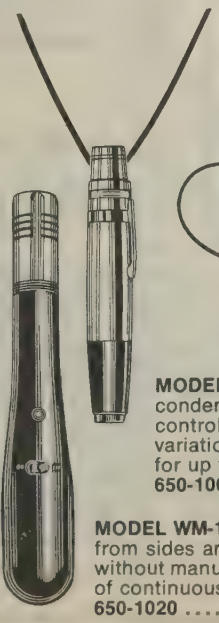
1-CHANNEL WIRELESS TUNER

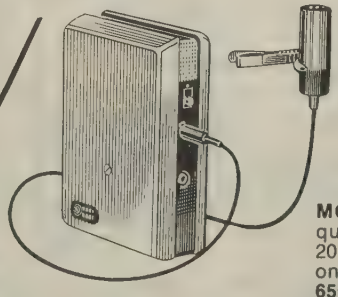
MODEL WT-402 1-CHANNEL TUNER. Convert your existing PA system to modern wireless operation with this unit that plugs into your amplifier and channels the signals from the wireless FM mikes to your speakers. Features crystal control to eliminate troublesome tuning. Has a pilot/tune-in light that stops "blinking" when a wireless mike is operating, squelch for silent standby when no mike is working, continuous tone control. Built-in telescoping antenna. For 120 VAC.
650-5001 ..... Each 215.00

MODEL WT-403-4 4-CHANNEL TUNER. Has the features of above model, plus built-in mixer-amplifier with four fader controls plus master volume control; independent tuner modules for different frequency settings which permit use of any frequency for each channel; battery or AC operation; rack mounting (without case). Batteries not included.
650-5010 ..... Each 840.00

MODEL MA-220W WIRELESS TUNER/AMPLIFIER/SPEAKER SYSTEM. Almost instant set-up plus 4-speaker operation makes this slimline system a favorite of professionals. Sets up indoors or out in seconds, and amplifies wireless FM mike transmissions with FM clarity. This and a wireless mike are all you need for total coverage of large audiences. Impressive, simple, efficient! Built-in antenna and full controls. 67 x 6". For 120 VAC or optional battery power. Wt. 36 lbs.
650-4001 ..... Each 735.00

MODEL MA-220 WIRED AMPLIFIER/SPEAKER. Same great appearance and easy set-up but without built-in tuner. Wt. 36 lbs.
650-4010 ..... Each 495.00





YOUR CHOICE OF 3 HIGH-QUALITY FM WIRELESS MIKES

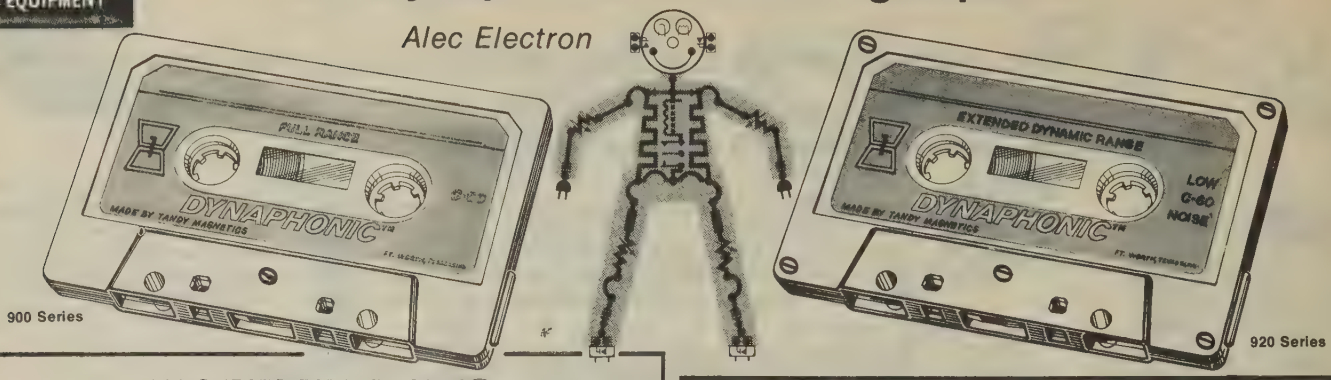
MODEL WM-101 HAND MIKE. Broadcast quality and absolute frequency stability. 200-ft. range. May be clipped to belt. Weighs only 8 oz. 1½ x 3⅞". With battery.
650-1010 ..... Each 232.00
MODEL WL-101 LAVALIER MIKE. Plugs into wireless mike above.
650-1015 ..... Each 42.00

MODEL WM-140 HAND/LAVALIER MIKE. An excellent omnidirectional electret condenser designed to pick up sound from all directions. Built-in automatic gain control assures steady volume at all times — great for PA work where volume variations cannot be tolerated. 200-ft. range. Four H-D batteries provide 5.2 volts for up to 15 hours of continuous operation. $^{53}/_{64}$ x $5^{7}/_{16}$". Wt. 0.18 lbs.
650-1001 ..... Each 165.00

MODEL WM-146 DELUXE HAND MIKE. High fidelity unidirectional mike rejects sound from sides and rear. 200-ft. range. Built-in automatic gain control for steady volume without manually "riding gain." Solid-state throughout. 9V cell provides up to 15 hours of continuous operation. 1⅝ x 10". Wt. 0.42 lbs.
650-1020 ..... Each 140.00

Dynaphonic™ Recording Tape

Alec Electron



900 Series

920 Series

900 SERIES DYNAPHONIC™ FULL RANGE CASSETTES

- **Flat Frequency Response of 25 to 7500 Cycles**
- **High Quality Welded Cassette Housing**
- **Four Standard Sizes Available**

Standard output magnetic oxide recording tape with flat frequency response of 50 to 7500 cycles within 4 dB. Housed in high quality welded cassettes, soft window. Recording noise level of −55 dB. Labeled and bulk packed. **Sold only in multiples of 100.**

MINIMUM ORDER: 100 PIECES PER TYPE

Stock No.	Mfr's Type	Description	Min. Order 100 Cassettes 100-400	500-900	1000-Up
601-2030	10-901	C-30	**.58**	**.47**	**.43**
601-2060	10-902	C-60	**.68**	**.56**	**.51**
601-2090	10-903	C-90	**.92**	**.73**	**.68**
601-2120	10-904	C-120	**1.16**	**.93**	**.87**

920 SERIES DYNAPHONIC™ LOW-NOISE EXTENDED RANGE CASSETTES

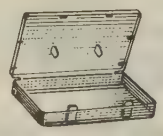
- **Frequency Response of 25 to 11,000 Cycles**
- **5 Screw, Precision Cassette Housing**
- **Three Standard Sizes Available**

Low noise high output magnetic oxide recording tape. Output at 6300 cycles plus 2 dB relative to 900 Series recording tape. Frequency response of 25 to 11,000 cycles within 4 dB. Noise level of −58 dB. Housed in 5 screw, precision cassette casing. Labeled and bulk packed, 100 per case. **Sold only in multiples of 100.**

MINIMUM ORDER: 100 PIECES PER TYPE

Stock No.	Mfr's Type	Description	Min. Order 100 Cassettes 100-400	500-900	1000-Up
601-1000	10-925	C-45	**.86**	**.73**	**.60**
601-1100	10-926	C-60	**.98**	**.83**	**.68**
601-1200	10-927	C-90	**1.43**	**1.22**	**.99**

CASSETTE BOXES



Type 611. Translucent polypropylene hinged boxes are available in case quantities of 400 per case. (Shipped in separate containers from the bulk cassettes.) ***Sold only in multiples of 100.**

Minimum order: 100 pieces
601X2000 ..... Price Each* .15

CASSETTE TAPE SPECIFICATIONS

Operational Tests

1. Cassette and tape shall withstand environmental extremes of 159°F, +0-9°F at 0 to 30% R.H. for 24 hrs; −22°F, +9-0°F for 24 hrs; and 113°F, +9° at 95% R.H. for 24 hrs. without obvious distortion and shall still operate. Ref: GSA specifications FPNHO-R-55228-A-6-7-73. **2.** The recording characteristics shall conform to the above GSA specification table III, page 17. **3.** The playing time shall be at the indicated time per side when running at 1.875″ per sec. (nominal 1⅞).

Designation	Normal	Minimum	Maximum
C-30	15 min. 22 sec.	15 min.	16 min. 10 sec.
C-60	30 min. 44 sec.	30 min.	32 min. 20 sec.
C-90	46 min. 6 sec.	45 min.	49 min. 30 sec.
C-120	61 min. 30 sec.	60 min.	64 min. 40 sec.

Cassette Assembly — 920 Series

1. Cassette shall be smooth, clean, free of cracks and sharp flash, ultrasonically welded with no seam in tape path. Screwed together — 5 screws. **2.** Cassette halves shall be mated with less than 0.010″ misalignment. **3.** Viewing window shall be rigid and sealed in place. **4.** Tape corner guides shall be flanged plastic rollers turning on lubricated steel pins. **5.** Cassette shall contain friction liners coated with graphite. **6.** Hubs shall be white. **7.** Dimensions of cassette and its openings shall conform to IEC 94A specifications. **8.** Maximum torque with hole back shall be 55 gm-cm.

Cassette Assembly — 900 Series

All of above specifications except #3: 900 Series cassettes have soft window and are not screwed together.

CROSS REFERENCE TABLE FOR MAGNETIC TAPE

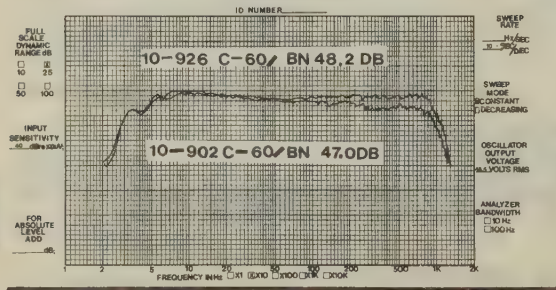
T.M. 900 Series

Size	R/S	3M	BASF	TDK	MEMOREX	CAPITOL
C-30	44-901	.....	SK	D-C30	.....	.....
C-60	44-902	H-C-60	SK	D-C60	.....	.....
C-90	44-903	H-C-90	SK	D-C90	.....	.....
C-120	44-904	H-C-120	SK	.....	.....	.....

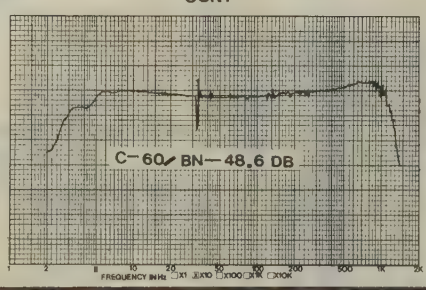
T.M. 920 Series

Size	R/S	3M	BASF	TDK	MEMOREX	CAPITOL
C-45	44-925	S-C-45	.....	.....	MRXII	II
C-60	44-926	S-C-60	LH	ED	MRXII	II
C-90	44-927	S-C-90	LH	ED	MRXII	II

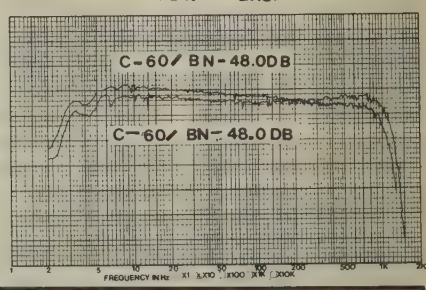
DYNAPHONIC



SONY



TDK BASF

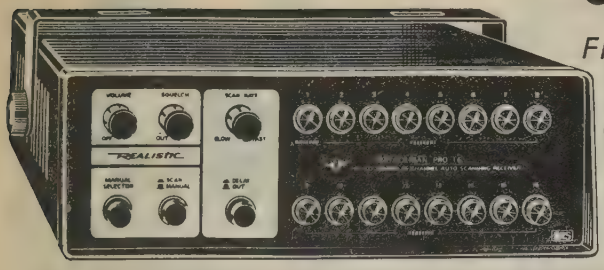


CUSTOM LABELING SERVICE. At suprisingly low cost, Allied Electronics will supply volume purchasers with custom-printed, private tape labels made from the purchaser's own graphics. (Min. order: 25,000.) Contact your nearest Allied facility for pricing and delivery information.

Realistic® Scanners, Headsets, and Cassette Recorder

AUDIO EQUIPMENT

FROM RADIO SHACK – SCANNING MONITOR RECEIVERS FOR HOME, OFFICE, BUSINESS OR CAR!



22995

16 CHANNEL SCANNING MONITOR RECEIVER

Scans These Bands:
• 30-50 MHz VHF-Low • 148-174 MHz VHF-High • 450-512 MHz UHF

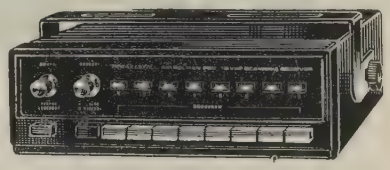
Realistic® PRO-16A. Hear your local police and fire departments, sheriff's department and state police, the National Weather Service, Ham radio operators, highway and railroad communications, and other government services. Crystal-controlled 16-channel scanning monitor receiver seeks and locks-in on each active channel, resumes scanning when conversation ends. Total interchangeability—put any channel on any band; 10.7 MHz and 455 kHz ceramic filters cut interference. Switchable "scan-delay" prevents missed callbacks and each channel's pushbutton can be locked-out to skip any channels desired. Variable squelch eliminates "hash" between messages. Manual channel selector button, scan rate control, "Channel-1 Priority" circuit, dual conversion VHF with triple-conversion on the critical UHF bands, individual channel indicator lights, and built-in speaker. Jacks for tape recording and headphone listening, too. Separate UHF and VHF antenna inputs, and external speaker provision. Sensitivity for 20 dB quieting: better than 1.0μV. 3½ x 9½ x 10". With mobile mounting bracket, power cords for 12 VDC neg. gnd. or AC. U.L. Listed. Requires up to 16 crystals (below).
910-1155. Type 20-165 ..... **Each 229.95**
910-1159. Crystals. Specify frequency. **1-5** ..... **Each 6.95** **6-Up** ..... **Each 5.95**

NEW!

18995

10 CHANNEL SCANNING MONITOR RECEIVER

Realistic® PRO-14. Automatically scans 10 crystal-controlled channels on three bands: 30-50 MHz VHF-Low, 148-174 MHz VHF-High, and 450-517 MHz UHF. Has all the advantages of the PRO-16A (left) but does not include delay lockout, or priority or variable scan rate. Total interchangeability — put any channel on any band; 10.7 MHz and 455 kHz ceramic filters cut interference. AFC circuit on UHF bands; Dual-power operation for home (120 VAC), auto or marine (12 VDC) use. Lighted channel lockout/indicator pushbuttons, jack for headphones or external speaker. 2⅞ x 7½ x 10". Requires up to 10 crystals (below). U.L. Listed.
910-1165. Type 20-159 ..... **Each 189.95**
910-1159. Crystals. Specify frequency.
1-5 ..... **Each 6.95** **6-Up** ..... **Each 5.95**



14995

PATROLMAN® SCANNING MONITORS / HOME OR CAR

Realistic® PRO-77A. Scans VHF High-band 148-174 MHz and VHF Low-band 30-50 MHz, 10 channels per second. Scans up to 8 crystal-controlled channels, any combination on both bands. Channel lock-out, skipper, and 2-second delay circuits. Lighted indicators, FET/IC circuitry, DC gated squelch, 10.7 MHz and 455 kHz ceramic filters. Built-in speaker and headphone/external speaker jack. 1.0μV for 20 dB quieting. 3 x 7½ x 9". AC and 12 VDC power cables, universal mtg. bracket. Requires up to 8 crystals (below). U.L. Listed.
910-1150. Type 20-172 ..... **Each 149.95**
Realistic® PRO-7B. As above, but does not cover VHF Low-band. Requires up to 8 crystals (below). U.L. Listed
910-1160. Type 20-173 ..... **Each 119.95**
910-1159. Crystals. Specify frequency.
1-5 ..... **Each 6.95** **6-Up** ..... **Each 5.95**

PALM-SIZE 4-CHANNEL VHF/UHF BANDS

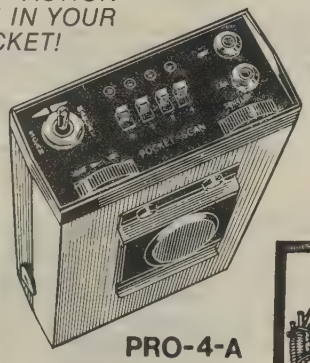
NEW!

POCKET SCANNERS! PUT THE "ACTION BANDS" IN YOUR POCKET!

99.95

119.95

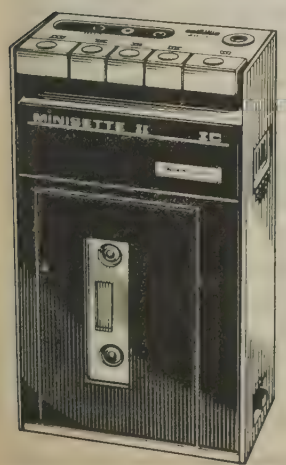
PRO-5 &6



PRO-4-A

Realistic® PRO-5 UHF Band and PRO-6 VHF Hi-Lo Band Scanners. Two new models provide pocket-size portable listening on any police band. PRO-5 covers UHF 450-470 MHz; PRO-6 covers VHF Hi-Low 30-50 and 148-174 MHz. Each scans 4 crystal-controlled channels, stops for each call, waits 1.5 seconds for return call, then resumes scanning. Skipper circuit with 4 lockout switches; ceramic filters and dual conversion. Variable squelch and volume. "LED" channel indicators save battery power. Easy-access crystal compartment, built-in speaker and antenna, jacks for external antenna, earphone, external power and charger. Includes 4 "AA" cells. Requires up to 4 crystals (below). 7½ x 2¾ x 1¼".
910-1145. PRO-5. Type 20-169 ..... **Each 119.95**
910-1147. PRO-6. Type 20-171 ..... **Each 119.95**

Realistic® PRO-4 VHF-Hi Scanner. Palm-size scanner monitors 4 VHF channels (148-174 MHz police/fire/weather) at the rate of 10 channels per second. Allows 1.5 second delay for callbacks, skipper circuit permits channel bypassing. Automatic or manual channel selection, adjustable squelch for silent standby. 10.7 MHz and 455 kHz ceramic filters reduce adjacent channel or signal interference. Sensitivity better than 0.75μV for 20 dB quieting. Low-drain LED channel indicators, easy-access crystal door, built-in antenna and speaker. Jacks for external antenna, power, earphone. Belt clip. With 9-V battery. Requires up to 4 crystals (below). 5½ x 2¾ x 1¼".
910-1157. Type 20-168 ..... **Each 99.95**
910-1159. Crystals. Specify frequency. **1-5** ..... **Each 6.95** **6-Up** ..... **Each 5.95**

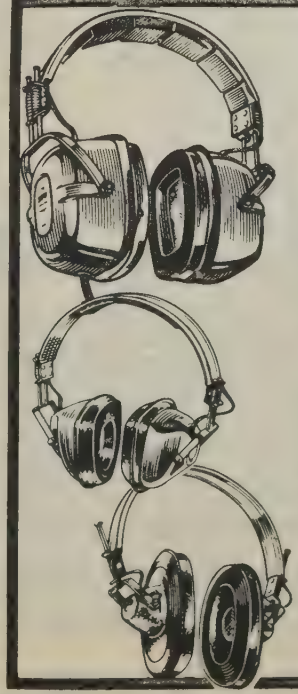


MINNISETTE-II ULTRA-COMPACT PORTABLE CASSETTE TAPE RECORDER

- Fits in Pocket
- Plays Up to 2 Hours
- Built-in Mike

89.95

Tiny in size, BIG in performance! Perfect for classroom lectures, business meetings —anywhere top-quality voice recordings are needed. Features built-in condenser mike that's sensitive to even the softest sounds. Push-button controls, including fast forward, automatic record level for distortion-free recording. 500 mW output for clear tone and high volume seldom found in a recorder of this size! Has battery level meter, jacks for external mike, earphone. AC adapter optional (sold below). Includes deluxe carrying case, hand straps. 4 "AA" batteries included. Size 6⅝ x 3¾ x 1⅜".
910-1053. Type 14-874. 2½ lbs. **89.95**
910-0049. Type 14-854. **AC Adapter.** ½ lb. **5.95**



FULL-RANGE RESPONSE STEREO HEADPHONE KIT

Foam Earcushions for Hours of Comfortable Listening With Minimum External Noise

AVIATION/MARINE HEADSET

MODEL AV-NS-7. Special noise-shield for maximum intelligibility despite elevated noise level in hi noise areas. External noise attenuated to 50 dB. Lets you listen for hours without strain. Can be worn comfortably with glasses. Contoured foam earcushions. Response, 10–15,000 Hz. Impedance, 600 ohms. 10 ft. retractable cord, phone plug. Wt. 3 lbs.
949-8702 ..... **Each 55.60** **5-Up** ..... **Each 45.00**

HEADSET FOR LANGUAGE LABS

MODEL AP-S-2. Deluxe, lightweight. For prolonged use in language labs and communications. Soft, vinyl-covered foam earcushions. Frequency response is 80–12,000 Hz. Factory connected for hi-impedance 600-ohm output. Leads may be changed to 4–16 ohms. With 7 ft. 4-conductor cord, standard ¼" phone plug. Ship. wt. 3 lbs.
949-8700 ..... **Each 28.59** **5-Up** ..... **Each 25.95**

"COMMUNICATOR" HEADSET

MODEL COM-S. Extra sensitive headset. Frequency response 100–10,000 Hz. Highly intelligible voice reception. Soft, vinyl-covered foam-filled washable earcushions. Listen for hours without tiring. Dynamic elements for crisp audio reproduction. Impedance, 4–16 ohms. 7 ft., 2-conductor cord, ¼" phone plug. Ship. wt. 1 lb.
949-8710 ..... **Each 17.50** **5-Up** ..... **Each 13.95**

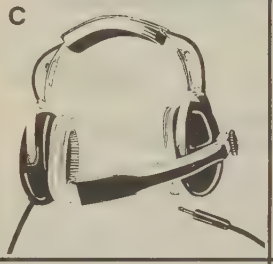
19

Sound Power Headphones, Telephone-Type Intercom

A

OVERHEAD MODEL 15SM-A

C

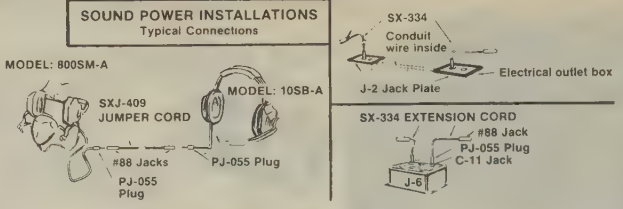


OVERHEAD MODEL 10SB-A

E

OVERHEAD MODEL 10 SEB

SOUND POWER INSTALLATIONS
Typical Connections



SOUND POWER

Transmits up to 30 miles, up to 4 or 5 may be connected for shorter distances. No batteries, no amplifier required. Your voice is the power. Incorporates the finest quality sound power elements fabricated to government specifications.

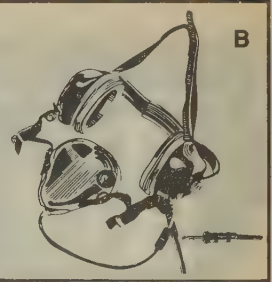
Model 15SM-A • Model 800SM-A
Headset/Microphone. (Noise Shielded). Affords reliable, distinct clear communications in medium to high noise areas up to 130 dB. A push to talk switch is conveniently located on the microphone shield

Model 10SB-A • Model 800SB-A
Headset/Microphone. (Acoustic Boom). Backloads a receiver by use of a durable acoustic boom. This principle eliminates the boom mounting of a heavy microphone element. The lightweight boom easily adjusts in all planes. Boom can be worn on either side of the head For noise areas up to 100 dB.

Model 10SEB
Headset/Microphone. (Acoustic Boom). Same as 10SB-A except single ear. For use in noise up to 70 dB

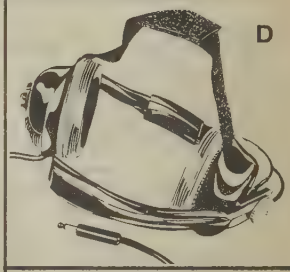
Stock No.	Model	Fig.	EACH 1-4	EACH 5-Up
535-0240	15 SM-A	A	139.00	118.20
535-0390	800 SM-A	B	139.00	118.20
535-0185	10 SB-A	C	126.95	107.92
535-0380	800 SB-A	D	126.95	107.92
535-0400	10 SEB	E	97.50	82.77

B



BEHIND HEAD MODEL 800SM-A
(Hard Hat or Bump Cap Use)

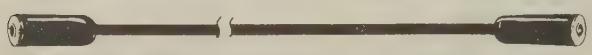
D



BEHIND HEAD MODEL 800SB-A
(Hard Hat or Bump Cap Use)

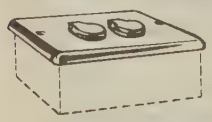
SOUND POWER ACCESSORIES

Illustrated below is a line of accessories designed to make complete sound power system installations. For simplicity and flexibility all plugs and jacks on headsets, extension cords, jack plates and junction boxes mate with each other. All cords are two-conductor neoprene jacketed for extended flexlife and abrasion resistance.



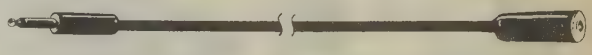
SXJ-409 — Jumper Cord. This jumper cord is all that is required to make a complete two-man system. Headsets plug directly into the #-88 jack at each end of this cord. Should greater distance be required, our SX-334 extension cord may be used in conjunction with the jumper cord

Stock No.	Type	Length	EACH 1-4	EACH 5-Up
535-0059	SXJ-409-12	12′	12.95	11.65
535-0062	SXJ-409-25	25′	17.50	14.90
535-0064	SXJ-409-50	50′	25.75	22.00
535-0068	SXJ-409-100	100′	42.50	36.20



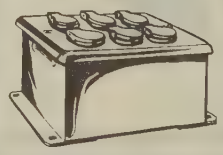
J-2 — Jack Plate. Jacks with weatherproof covers are mounted on a standard outlet faceplate (outlet box furnished by installer). Color coded pigtails are provided for easy installation

Stock No.	Type	EACH 1-4	EACH 5-Up
535-0040	J2	11.50	8.00



SX-334 — Extension Cord. This extension cord has a #-88 phone jack on one end and a PJ-055 phone plug on the other. It is used with any accessory shown, including the SXJ-409 or SX-334 extension cords.

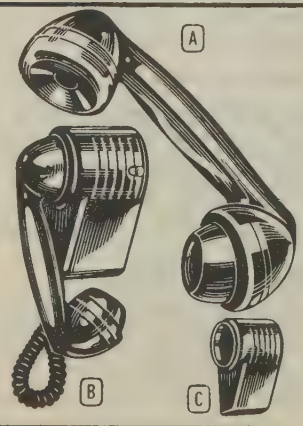
Stock No.	Type	Length	EACH 1-4	EACH 5-Up
535-0012	SX-334-12	12′	12.95	11.65
535-0072	SX-334-25	25′	17.25	14.90
535-0074	SX-334-50	50′	25.75	22.00
535-0076	SX-334-100	100′	42.50	36.20



J-6 — Junction Box. This is a heavy duty junction box approximately 2¾ x 4½ x 2¾ with jacks to accommodate up to six headsets.

Stock No.	Type	EACH 1-4	EACH 5-Up
535-0046	J6	55.50	47.20

ALL SOUND POWER EQUIPMENT ON THIS PAGE IS COMPATIBLE AND CAN BE INTERMIXED IN A SYSTEM.



SOUND POWERED TELEPHONE-TYPE INTERCOM SYSTEMS

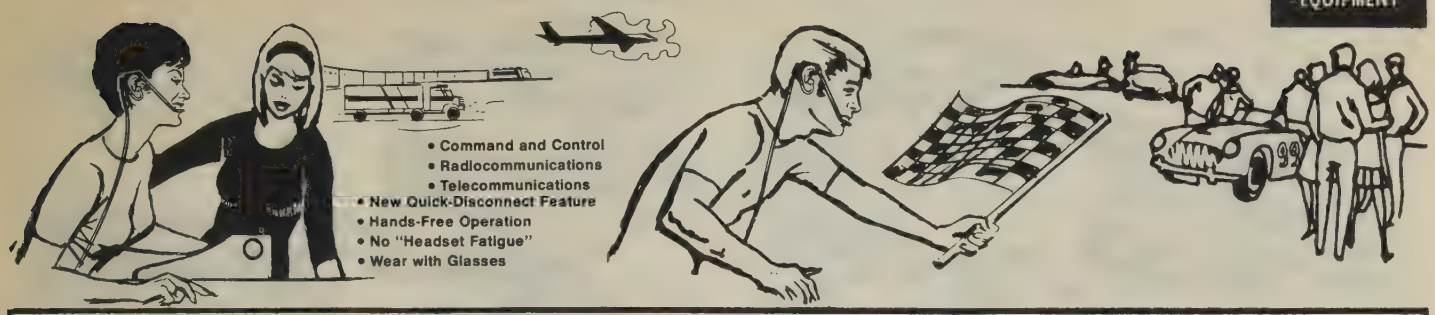
Use these handsets for maintenance-free communications in the plant, on construction sites, on the farm, wherever electrical power is lacking. Comparable in size and quality to the finest commercial telephone equipment. No batteries required. Voice power alone generates current for transmission. Sound-powered elements in telephone and ring generator have Alnico permanent magnets for infinite life without loss of strength. Can remain on an indefinite "standby" for emergency service when other facilities fail. Up to 12 telephones can be connected in parallel to provide fast communication at low installation cost. SPT-102 handset has 4½-ft. non-coiled cord, SPT-123 and SPT-150 have 4-ft. coiled cord. All handsets supplied less connecting cable (order separately at right). All units constructed of corrosion resistant material for trouble-free operation in any weather. Av. shpg. wt. 1½ lbs. except B-5446.

Stock No.	Mfr's Type	Fig.	Description	EACH 1-4	EACH 5-Up
987-4310	SPS-205		Complete two-station system with handset; wall mounting, ready for connection; including two SPT-123, two SPS-1205	91.75	78.00
987-4330	SPT-102	A	Handset; up to 12 can be paralleled	21.60	17.28
987-4333	SPT-123	A	Hi-level handset for noisy areas (less clips)	24.19	21.50
987-4336	SPT-150	A	Same as SPT-123 but with insulated clips	25.10	20.85
987-4323	SPS-1205	B	Wall mount handset holder; self-contained bell	26.55	23.50
987-4306	B-5446	C	Handset hook, for wall or desk-side mounting	2.85	2.28

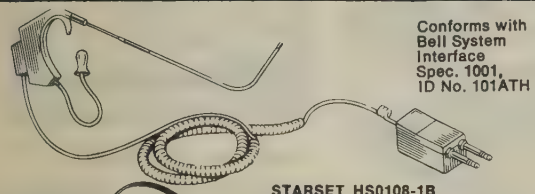
768-9149. Type 832203 Cable. 3-cond. for SPS-205. 2 lbs.
100-Ft. spool ..... Each 10.13

Lightweight Mike/Headsets

AUDIO EQUIPMENT

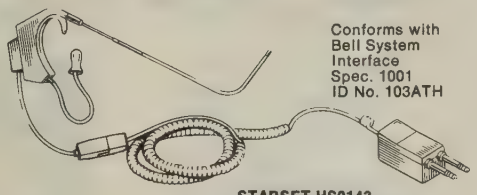


- Command and Control
- Radiocommunications
- Telecommunications
- New Quick-Disconnect Feature
- Hands-Free Operation
- No "Headset Fatigue"
- Wear with Glasses



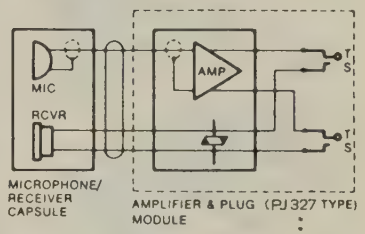
Conforms with Bell System Interface Spec. 1001, ID No. 101ATH

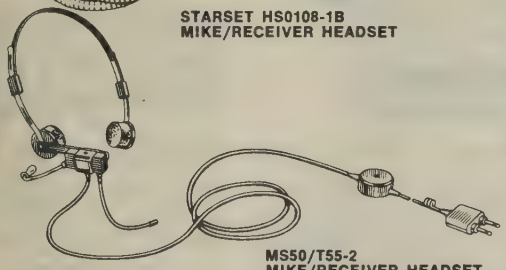
STARSET HS0108-1B MIKE/RECEIVER HEADSET



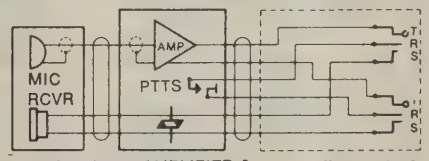
Conforms with Bell System Interface Spec. 1001 ID No. 103ATH

STARSET HS0143 QUICK-DISCONNECT MIKE/RECEIVER HEADSET

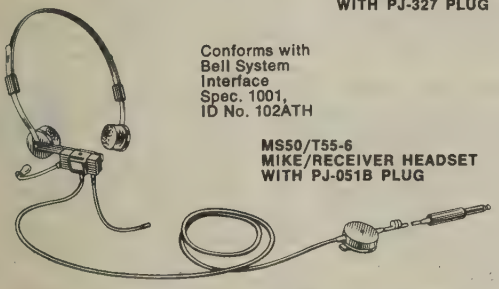




MS50/T55-2 MIKE/RECEIVER HEADSET WITH PJ-327 PLUG

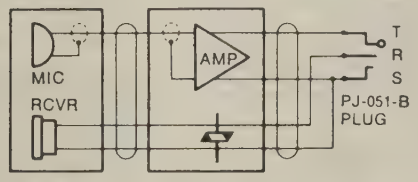


Alec Electron Says – He Who Buys from Allied Saves More



Conforms with Bell System Interface Spec. 1001, ID No. 102ATH

MS50/T55-6 MIKE/RECEIVER HEADSET WITH PJ-051B PLUG



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Model MS50/T55-2. Replaces carbon type headsets. Mike amplifier output at 50 ohms, 112 mV. 300-ohm receiver requires 0.1 mW input for 98 dB SPL. Operates at 4.4 VDC, 100 mA. 10′ coiled cord, PJ-327 plug. 16 oz.

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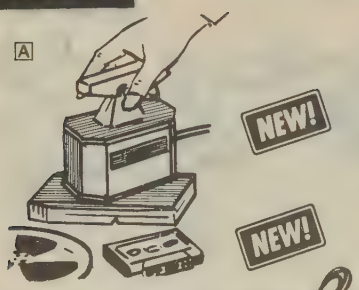

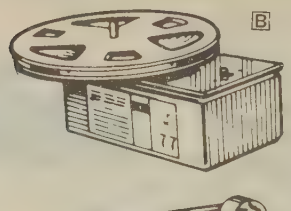

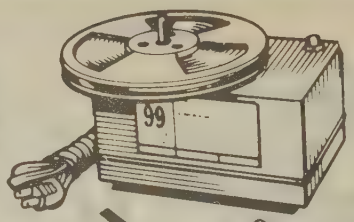

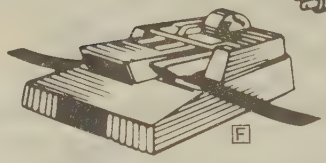

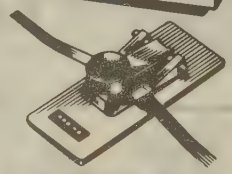

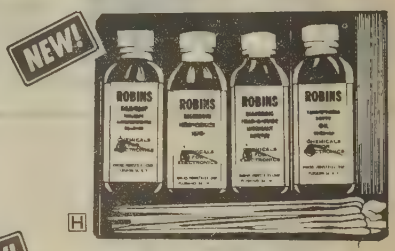

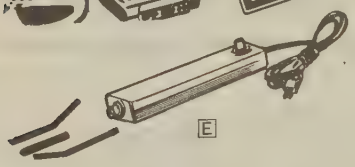

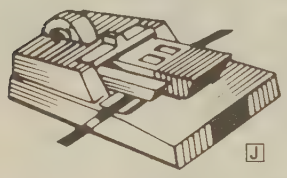

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H R32030 Complete Chemical Care Kit for Tape Recorders and Phonographs. Includes everything to assure optimum performance and trouble-free operation from recorders and phonos. Contains: 2 oz. bottles of head cleaner, head and guide lubricant, tape and phono drive oil, non-slip for tape recorders and phonograph devices, and 50 cotton-tipped "swabbies" on 6″ long applicators for safe cleaning of hard to reach parts of equipment.
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L R35005 Head-Kleen Kit for Cassette and Cartridge Player/Recorders. Cleans and lubricates metal parts to prevent rust and corrosion, assure smooth tape travel and full fidelity. Contains: 2 oz. bottles of head cleaner and head and guide lubricant; plus 25 extra long audio cleaners for reaching hard to reach spots.
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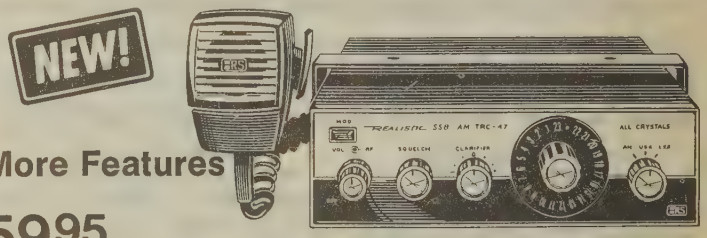

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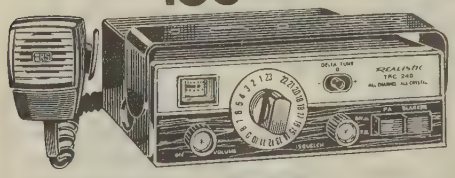

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A popular 23-channel base/mobile set to use at home as a base station or in your car. It's ready for today's CB market with Range-Boost to increase average modulation without using a preamplified mike. Dual conversion circuitry with mechanical IF filter, illuminated S/RF meter, variable squelch, headphone/external speaker jack. Delta-tune circuitry helps get off-frequency stations, too. Includes push-to-talk dynamic mike and coiled cord, mobile mounting bracket, AC and 12 VDC power cords. U.L. Listed. **SPECIFICATIONS: Sensitivity for 10dB S+N/N:** 0.5 μV. **Selectivity at −6 dB:** 6kHz. **Adjacent Channel Rejection:** −55 dB, ±10 kHz. **Audio Power Output:** 4 watts (10% THD). **RF Power Output:** 4 watts. **Power Requirement:** 120 VAC, 50-60 Hz, or 12 VDC positive or negative ground for trucks. **Size:** 4x11½x9″.
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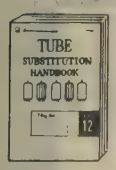

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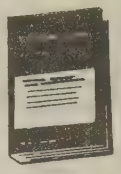

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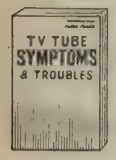

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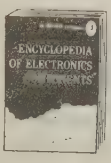

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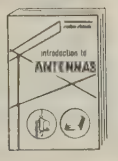

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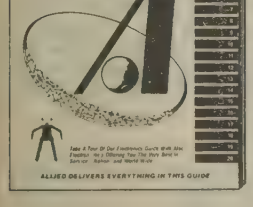

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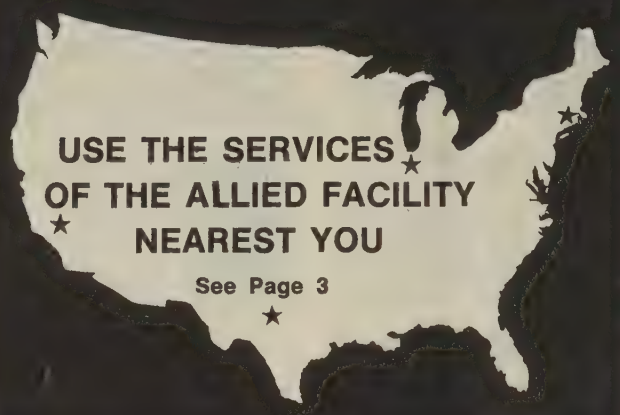

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SMALL PACKAGES

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1.01 to 2.50	.60
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Weight Not To Exceed	RATES TO Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8	Weight Not To Exceed	RATES TO Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	Zone 7	Zone 8
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2 "	.72	.75	.80	.85	.92	1.00	1.09	27 "	2.22	2.63	3.30	3.98	4.92	6.00	7.22
3 "	.78	.83	.90	.98	1.08	1.20	1.34	28 "	2.28	2.70	3.40	4.10	5.08	6.20	7.46
4 "	.84	.90	1.00	1.10	1.24	1.40	1.58	29 "	2.34	2.78	3.50	4.23	5.24	6.40	7.71
5 "	.90	.98	1.10	1.23	1.40	1.60	1.83	30 "	2.40	2.85	3.60	4.35	5.40	6.60	7.95
6 "	.96	1.05	1.20	1.35	1.56	1.80	2.07	31 "	2.46	2.93	3.70	4.48	5.56	6.80	8.20
7 "	1.02	1.13	1.30	1.48	1.72	2.00	2.32	32 "	2.52	3.00	3.80	4.60	5.72	7.00	8.44
8 "	1.08	1.20	1.40	1.60	1.88	2.20	2.56	33 "	2.58	3.08	3.90	4.73	5.88	7.20	8.69
9 "	1.14	1.28	1.50	1.73	2.04	2.40	2.81	34 "	2.64	3.15	4.00	4.85	6.04	7.40	8.93
10 "	1.20	1.35	1.60	1.85	2.20	2.60	3.05	35 "	2.70	3.23	4.10	4.98	6.20	7.60	9.18
11 "	1.26	1.43	1.70	1.98	2.36	2.80	3.30	36 "	2.76	3.30	4.20	5.10	6.36	7.80	9.42
12 "	1.32	1.50	1.80	2.10	2.52	3.00	3.54	37 "	2.82	3.38	4.30	5.23	6.52	8.00	9.67
13 "	1.38	1.58	1.90	2.23	2.68	3.20	3.79	38 "	2.88	3.45	4.40	5.35	6.68	8.20	9.91
14 "	1.44	1.65	2.00	2.35	2.84	3.40	4.03	39 "	2.94	3.53	4.50	5.48	6.84	8.40	10.16
15 "	1.50	1.73	2.10	2.48	3.00	3.60	4.28	40 "	3.00	3.60	4.60	5.60	7.00	8.60	10.40
16 "	1.56	1.80	2.20	2.60	3.16	3.80	4.52	41 "	3.06	3.68	4.70	5.73	7.16	8.80	10.65
17 "	1.62	1.88	2.30	2.73	3.32	4.00	4.77	42 "	3.12	3.75	4.80	5.85	7.32	9.00	10.89
18 "	1.68	1.95	2.40	2.85	3.48	4.20	5.01	43 "	3.18	3.83	4.90	5.98	7.48	9.20	11.14
19 "	1.74	2.03	2.50	2.98	3.64	4.40	5.26	44 "	3.24	3.90	5.00	6.10	7.64	9.40	11.38
20 "	1.80	2.10	2.60	3.10	3.80	4.60	5.50	45 "	3.30	3.98	5.10	6.23	7.80	9.60	11.63
21 "	1.86	2.18	2.70	3.23	3.96	4.80	5.75	46 "	3.36	4.05	5.20	6.35	7.96	9.80	11.87
22 "	1.92	2.25	2.80	3.35	4.12	5.00	5.99	47 "	3.42	4.13	5.30	6.48	8.12	10.00	12.12
23 "	1.98	2.33	2.90	3.48	4.28	5.20	6.24	48 "	3.48	4.20	5.40	6.60	8.28	10.20	12.36
24 "	2.04	2.40	3.00	3.60	4.44	5.40	6.48	49 "	3.54	4.28	5.50	6.73	8.44	10.40	12.61
25 "	2.10	2.48	3.10	3.73	4.60	5.60	6.73	50 "	3.60	4.35	5.60	6.85	8.60	10.60	12.85

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4	.69	.84	.90	1.01	1.16	1.33	1.51	1.69
5	.73	.90	.98	1.10	1.28	1.49	1.71	1.93
6	.77	.96	1.05	1.19	1.40	1.64	1.90	2.17
7	.81	1.02	1.13	1.28	1.52	1.80	2.10	2.41
8	.85	1.08	1.20	1.37	1.64	1.95	2.29	2.65
9	.89	1.14	1.28	1.46	1.76	2.11	2.49	2.89
10	.93	1.20	1.35	1.55	1.88	2.26	2.68	3.13
11	.97	1.26	1.43	1.64	2.00	2.42	2.88	3.37
12	1.01	1.32	1.50	1.73	2.12	2.57	3.07	3.61
13	1.05	1.38	1.58	1.82	2.24	2.73	3.27	3.85
14	1.09	1.44	1.65	1.91	2.36	2.88	3.46	4.09
15	1.13	1.50	1.73	2.00	2.48	3.04	3.66	4.33
16	1.17	1.56	1.80	2.09	2.60	3.19	3.85	4.57
17	1.21	1.62	1.88	2.18	2.72	3.35	4.05	4.81
18	1.25	1.68	1.95	2.27	2.84	3.50	4.24	5.05
19	1.29	1.74	2.03	2.36	2.96	3.66	4.44	5.29
20	1.33	1.80	2.10	2.45	3.08	3.81	4.63	5.53
21	1.37	1.86	2.18	2.54	3.20	3.97	4.83	5.77
22	1.41	1.92	2.25	2.63	3.32	4.12	5.02	6.01
23	1.45	1.98	2.33	2.72	3.44	4.28	5.22	6.25
24	1.49	2.04	2.40	2.81	3.56	4.43	5.41	6.49
25	1.53	2.10	2.48	2.90	3.68	4.59	5.61	6.73
26	1.57	2.16	2.55	2.99	3.80	4.74	5.80	6.97
27	1.61	2.22	2.63	3.08	3.92	4.90	6.00	7.21
28	1.65	2.28	2.70	3.17	4.04	5.05	6.19	7.45
29	1.69	2.34	2.78	3.26	4.16	5.21	6.39	7.69
30	1.73	2.40	2.85	3.35	4.28	5.36	6.58	7.93
31	1.77	2.46	2.93	3.44	4.40	5.52	6.78	8.17
32	1.81	2.52	3.00	3.53	4.52	5.67	6.97	8.41
33	1.85	2.58	3.08	3.62	4.64	5.83	7.17	8.65
34	1.89	2.64	3.15	3.71	4.76	5.98	7.36	8.89
35	1.93	2.70	3.23	3.80	4.88	6.14	7.56	9.13
36	1.93	2.76	3.30	3.89	5.00	6.29	7.75	9.37
37	1.99	2.82	3.38	3.98	5.12	6.45	7.95	9.61
38	1.99	2.88	3.45	4.07	5.24	6.60	8.14	9.85
39	2.06	2.94	3.53	4.16	5.36	6.76	8.34	10.09
40	2.06	3.00	3.60	4.25	5.48	6.91	8.53	10.33

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1½-2	1.75	1.83	1.95	2.06	2.20	2.34	APO & FPO San Francisco, 1.30 per lb.
2-2½	1.93	2.03	2.17	2.31	2.48	2.65	
2½-3	2.11	2.23	2.39	2.56	2.76	2.96	
3-3½	2.29	2.43	2.61	2.81	3.04	3.27	
3½-4	2.47	2.63	2.83	3.06	3.32	3.58	APO & FPO New York 1.25 per lb.
4-4½	2.65	2.83	3.05	3.31	3.60	3.89	
4½-5	2.83	3.03	3.27	3.56	3.88	4.20	
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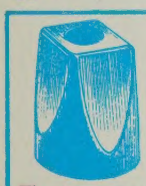

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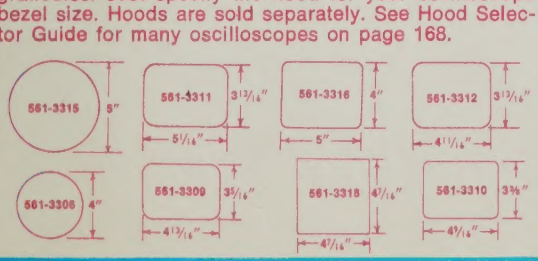

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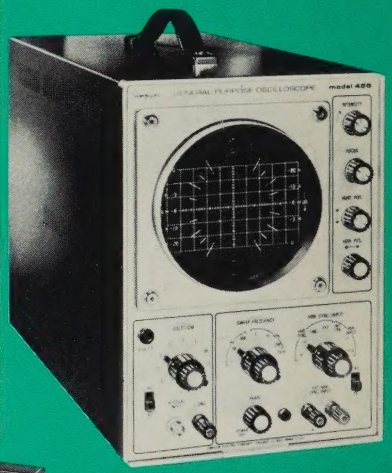

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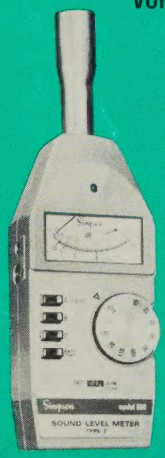

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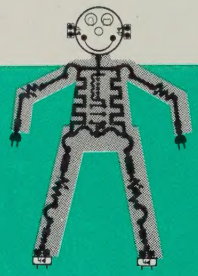

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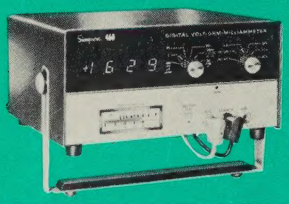

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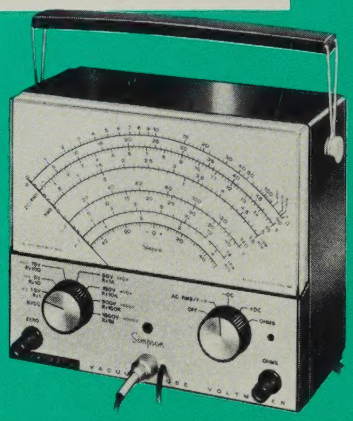

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